The **essential** magazine for Amiga enthusiasts

AMIGA SHOPPER

Issue **52** August 1995 **£3.99**

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ES COM

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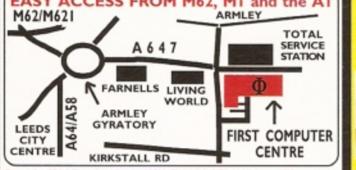
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AMIGA SHOPPER

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52 Inside issue

Escom and Amiga Technologies GmbH have promised to get Amigas back in the shops by the Autumn.

The future of the Amiga was outlined by Escom in a recent press conference that Amiga Shopper attended. We also asked lots of companies associated with the Amiga to comment on Escom's plans for the Amiga and what they had lined up for the future. Turn to page 14 to discover what Escom have in store for our machine.

We have taken a slightly different tack on the Coverdisks this month – we have an exclusive demo of Fourth Level Developments' new file system for professional users, Ami-FileSafe. But, because that didn't take up much room, we crammed loads more useful programs and utilities on to the disks too. You'll find several new areas which are designated to particular programs: for example, there's an Application Zone, a Utility Zone, a Programming Zone, a Technical Zone and a Creative Zone. All these zones will appear on the disks every month from now on and they will be packed with relevant programs. So you should always find something to interest you.

Back to the issue itself, we asked Larry Hickmott to take a look at the latest in scanners and tell us which are the best value for money. He also mentions other methods for bringing pictures into your Amiga, so you can make the right buying decision for your particular requirements. Turn to the Supertest on page 22 to find out the results of his rigorous tests.



Our interview this month is with Scala in the States. Our US correspondent, R Shamms Mortier asked them what they had in mind for the Amiga. This interview was actually held before the Escom press conference in Frankfurt and the fact that Scala MM300 will now be bundled with every Amiga on sale was not confirmed at the time of writing.

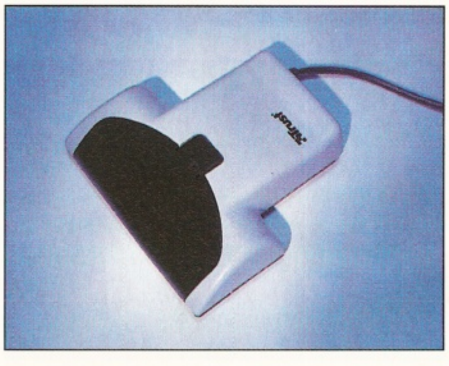
You'll also find reviews of Scala MM400, a three-page feature on emulators for the Amiga and loads more reviews of the latest products, plus two pages chock-a-block with CD-ROMs.

This month we have a special conference with Almathera, producers of Photogenics, the truly excellent image processing program. You'll find the conference on page 66, just before our Photogenics tutorial on page 68.

And don't forget to write in to Talking Shop to tell us what you think of Amiga Shopper and what you would like to see featured in the mag.

Susan Grant

Turn the page for the contents of issue **52**



Turn to the Amiga Shopper Supertest on page 22 to find the scanner for you.

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EDITORIAL Send all press releases, feature submissions and ideas to Sue Grant.
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COVERDISKS If you have a contribution, commercial or otherwise, that you would like to submit for consideration for the Coverdisks, send it to David Taylor.
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AMIGA SHOPPER

ShopperFeatures

ShopperReviews


Amiga Shopper found out what lies in store for the Amiga at Escom's recent press conference.

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CD-ROMs provide ideal picture libraries from clipart to 3D textures; you'll find this and more.

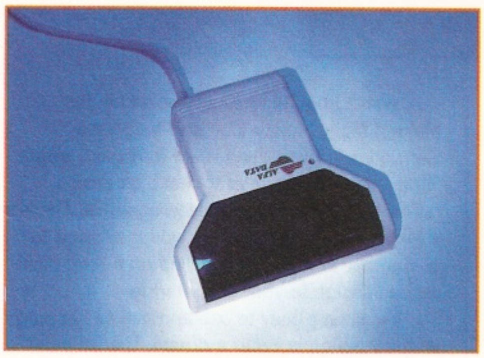


Epson's GT-9000 is a superb flatbed scanner.



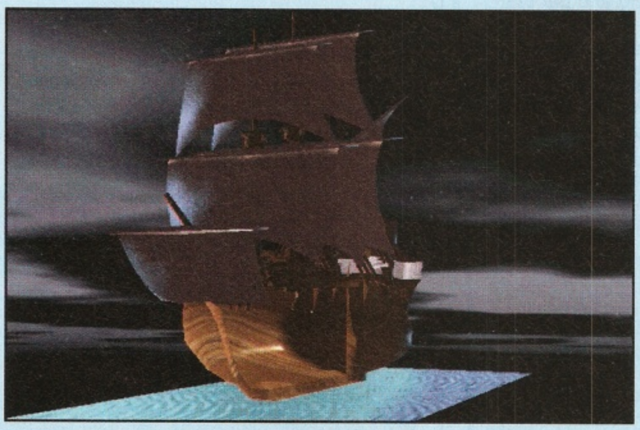
Supertest _22

The Amiga Shopper Supertest is renowned for being the most comprehensive and informative head-to-head review in the Amiga business. Every month we take a good, long look at what we know are of immediate interest to our readers. In the last few months we have covered programming languages (AS47), modems (AS48), CD-ROMs (AS49), genlocks (AS50) and printers (AS51). This month, our DTP expert, **Larry Hickmott**, tells you which scanner, flatbed or hand-held, is the most suitable for your particular needs.



The Alfascan 800 is a high-res hand-scanner.

Shopper**Disks** – turn to page 6 for full instructions



There's so much on this month's disks that there's just no space to tell you about all the programs, utilities, music, clipart, tutorials, CLI commands... Anyway, this is one of the 3D objects that's on there.

An exclusive and fully-working demo of Ami-FileSafe is just the mere beginning for this month's Coverdisks, which are literally stuffed to the gills with 4Mb of utilities, applications, Imagine and LightWave objects, sound samples, programming tools, bitmap fonts, music modules, clipart, CLI commands and so much more!

They are all sorted into suitable areas so you can simply lay your hands on what you want without any trouble whatsoever. Thanks to a new archiver, there's so much packed on the Coverdisks that there just *has* to be something for everyone. Take a look for yourself...





Disks 1&2

When do two disks contain 4Mb? When they're the AS Coverdisks of course! **David Taylor** *introduces the blinding collection of programs that we've crammed on for you.*

This month the Coverdisks have undergone a few changes and we think you're going to be rather pleased with the results, because *we* certainly are. The archiving process has been altered and you can now boot any disk and install to either floppy or hard drive. To make things even easier, the programs have been divided up into sensible sections to help you find what you're looking for.

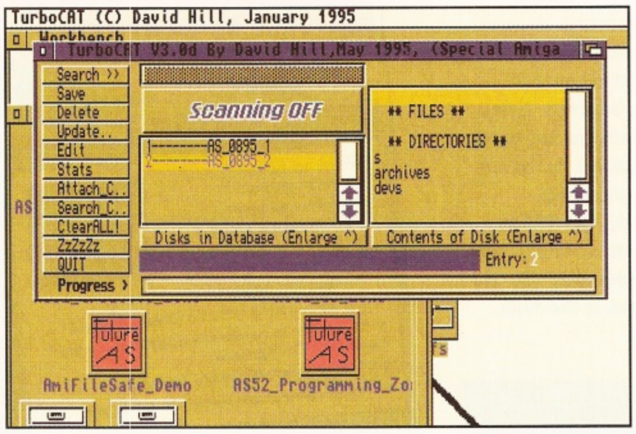
Application**Zone**

TurboCat 3

Everyone tends to have sets of disks lying around and yet very few of us ever manage to label them with more than a cursory indication of what they contain. This program is a powerful and friendly disk cataloguing system. You can select automatic scanning in order to build up your initial database.

All you need to do is load the program and then insert your disks into df0:. TurboCat will scan each disk and record the directories and files stored on each disk. Then simply mark each disk with the appropriate number, starting, believe it or not, with 1.

Once your disk collection has been recorded, you can search through it and edit any records as and when you want. So, should the contents of your disks change regularly, it's easy to ensure your database is accurate.



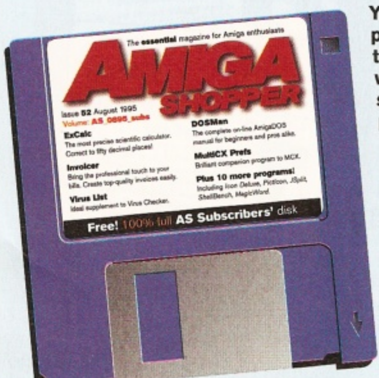
TurboCat 3 is a fully automatic disk cataloguing program that comes with another program, TurboView, to allow you to search the contents of your disk collection's database.

In addition to TurboCat, TurboView is also included. This program is the companion program which can be loaded to search the database, either for disks or programs. Once your program is found, the records can be examined.

This program can be installed to your hard disk, or run from floppy. If you are running it from floppy, then you may wish to create a single autobooting floppy disk so you don't have to load Workbench every time, especially if you only have one disk drive. To create an autobooting disk, boot a standard copy of Workbench from floppy (this is very important; it must be a standard Workbench) and put the disk with TurboCat in. Double-click on the Make_Single_Floppy icon and follow the instructions. If you don't need to make a single floppy, you do still need to make an assign, telling the system where the program is. There is a Make_Assign script which you may need to customise, or if you've installed on a hard disk, add an assign to your user-startup.

It's all very easy to use and makes keeping your collection in order a dream. Thanks must go to TurboCat 3's author, David Hill, for supplying AS with this exclusive version. He has also been working on a new version which should be ready when you read this, so if you register, you'll get a full, new version.

Subscribers-only disk



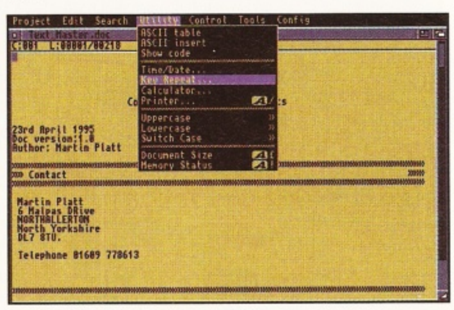
You may have thought that we'd already done enough by packing so much on to the Coverdisks, but not being ones to rest on our laurels, we produce a third disk each month which is exclusive to subscribers. So, if you're already a subscriber, you'll know about the 15 more utilities that are packed on there.

This month's subs disk contains such excellent programs as ExCalc, the most precise calculator for any computer, Invoicer, MultiCX Prefs, the wonderful companion program to the MultiCX commodity on this month's Coverdisks, Icon Deluxe and PictIcon, two powerful icon editing programs, DOSMan, the on-line AmigaDOS manual, Virus List, a useful supplement to Virus Checker and another seven utilities.

If you're not a subscriber and can't bear the thought of missing out on any more of these brilliant disks, then turn to page 56, or phone the subscriptions hot-line on 01225 822511. Remember, these disks are not available any other way, no matter how much begging you do!

Text Master

There's no denying that the word processors supplied with Workbench are sadly lacking. We've seen many programs launched to fill this gap, but here's a brand new one with some

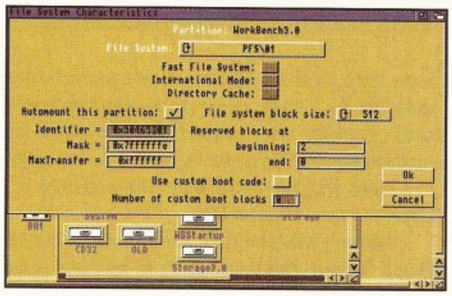


Text Master is a powerful WP program which has both menu options and keyboard shortcuts.

Ami-FileSafe Demo

The Amiga is unusual in that it can support various file systems. Not just PC disks and the PD file systems like Diskspare, it has even had various official file systems, the OFS that the Amiga started out with and the Fast File system that came around with Workbench 2. Directory caching was also introduced.

Although these advances in file systems were welcome, it has been left to third party developers to go further. Ami-FileSafe is a new system that not only allows more data to be fitted on to a drive, but also brings the added security of a system that can survive a crash when you are writing to it.



Ami-FileSafe can be installed with HDToolbox.

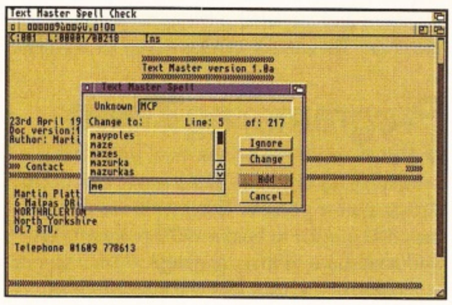
Buying Ami-FileSafe

To get hold of a copy of Ami-FileSafe, turn to Amiga Shopper's mail order section on page 34. Or call our mail order hot-line number ☎ 01225 822511.

You can also contact the distributors, Fourth Level Developments, on ☎ 0117 985 4455, or Fax 0117 955 9157. Their address is 31 Ashley Hill, Montpelier, Bristol BS6 5HJA.

It used to be the case that writing to a disk and having a crash meant several hours trying to recover data and salvage your drive, but those days can be over with this new system. Full instructions on to how to use this demo can be found in with the program. It will allow you to create a partition of up to 10Mb on your hard drive for you to play with. You'll notice not only a speed increase, but also better capacity, particularly if you have multiple small files.

For more information about the demo see the docs and for a review of the package, see page 46.



Text Master comes complete with a 36,000 word dictionary, as well as many other features.

unique features. If you use your Amiga seriously, then you'll often need to edit ASCII scripts and although some WPs will do this, they often have commands like Esc which contradict with text you want to input, which scuppers you somewhat. As soon as you try to insert an escape code, you discover that you need to use a different text processor, but who wants to resort to Ed?

Text Master is a fully-featured word processor with everything you'd expect to find. There's the obvious cut, copy and paste, as well as the find options, insert character, switch character cases and document analysis. Also included is a 36,000-word dictionary and a word count facility.

All documents can be loaded and saved as ASCII, which is a welcome relief from the unusual document formats that have been introduced. Using all the functions is simple because the program is menu-driven, but to give you added control, keyboard short-cuts are available.

If all this wasn't enough, Text Master really shows its colours for programmers. Script attributes can be altered and program listings can be compiled. It can also interact with several of the Amiga's commodities, such as selecting the calculator. And the printer runs from the preferences, which means that you don't need to configure the program since it will read your settings from Workbench.

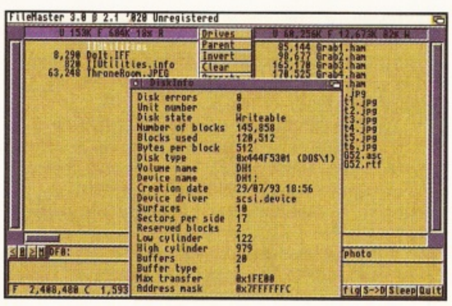
This program requires reqtools.library, which can be copied to your libs: directory, by double-clicking on the Install icon. There is also an icon for creating and booting a single floppy, which you can copy a program on to, to avoid having to load Workbench each time.

File Master 3

If you have a load of programs floating around, especially if you have a hard drive, then Workbench starts to become a slow way of manipulating your files. File management programs are the answer, because it's easy to access files and operate on them.

File Master 3 is a powerful file manipulator that offers all the obvious options, such as copy, move and delete, but also has others, such as makedir, show asc, show hex, show pic (which can even show JPEGs on appropriate computers). It is very advanced and can handle modules and sound samples, with requesters to work from disk or memory to make operation as smooth as possible.

The screen is split into half vertically with



File Master 3 has more than just the copy and delete commands you find in any file manager.

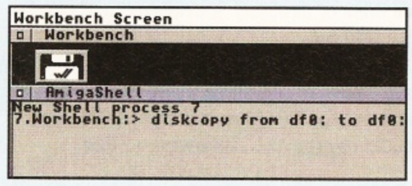
Beginners, look!



Before using either of this month's Coverdisks, please be sure to back them up – just in case. Simply follow the easy instructions below.



1 ***Boot up from your Workbench disk or partition, double-click on your Shell icon – to be found in your system drawer.***



2 ***If you only have a one disk drive, type in the following line and then press return.***

```
Diskcopy from DF0: to DF0:
```

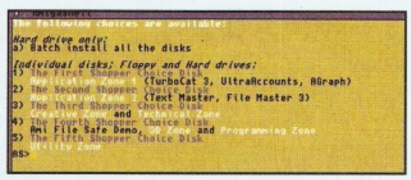
If you have two drives, place the Coverdisk in DF0: and a blank in DF1:, then type in the next line instead.

```
Diskcopy from DF0: to DF1:
```

3 ***Follow the on-screen prompts and remember that the Coverdisk is the source disk and the blank is the destination.***

4 ***If you used the two-drive method, remember to rename the copy by clicking on its icon and pressing right-Amiga <r>.***

5 ***If you have two drives, you can also copy the disk from Workbench by dragging the Coverdisk icon over the destination disk's.***



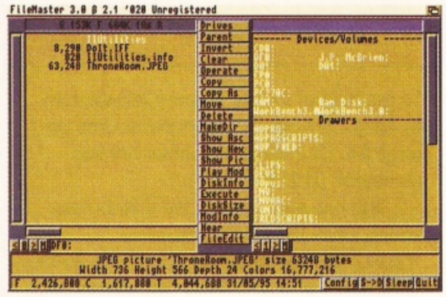
6 ***Then boot any of the disks. However, it is best to boot disk 1 (or the Subs disk if you're a subscriber). This will let you install all the disks to either floppy or hard drive.***

Dodgy disk?

If your disk absolutely refuses to work and you are certain it is faulty, please return it, along with an S.A.E., to:

Amiga Shopper Coverdisk
(insert the name of the disk),
Discopy Labs Ltd., PO Box 21,
Daventry, NN11 5BU.





File Master 3 (above) can display many file types including JPEGs like Throne Room (left) from an animation by Jonathan McBrien.

Disk contributions

This month's disks were compiled using files from Aminet and from Walton's Mountain BBS, ☎ 0181 891 5730, and with the help of the authors of the individual programs. The Imagine objects were supplied by the Imagine User Group, 44 Brampton Close, Corringham, Essex, SS17 7NR, ☎ 01375 670036.

If you would like to contribute to a future disk, whether it's a full application, utility, 40K demo, clipart, font, 3D object, or even a module, send it to: David Taylor, Amiga Shopper Coverdisk Contributions, 30 Monmouth Street, Bath, Avon, BA1 2BW. Remember, the smaller it is, the more chance that it will be included.

the operators listed in the middle. Each side of this drive or directory is displayed and can be operated on.

Like Text Master, File Master 3 requires the reqtools.library, so either install it or create a self-booting disk. Also, like Text Master, you should register this shareware version.

Ultra Accounts

This program has been designed to be as easy to use as possible, in order to help you take control of your finances. The program allows multiple accounts with the ability to transfer funds between them and simulate the real workings of your account so that you know exactly how much you have at any time.

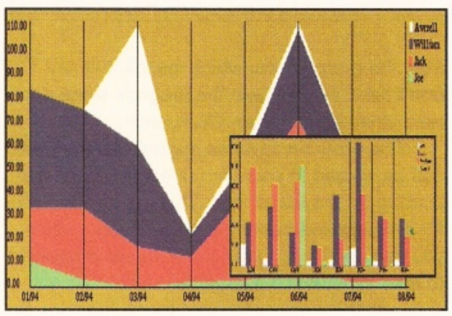
Creating an account is simple and you can enter your starting balance and then add the maximum and minimum amounts that should be allowed in that account.

Standing orders and direct debits are supported so that your account is mirrored as closely as possible. In addition, there is a graph menu which will give you a bar graph charting the highs and lows of your fiscal month.

Registration of this program will bring you more power, and may even be granted at poverty rates, which is quite apt for those of us who need to use this program.

AGraph

When you try to put together a presentation, even if it's for a school project, it's much better if data can be visually represented in some form of chart, because we can assimilate the information more easily. However, sitting and drawing charts in a paint program is not only a hit-and-miss affair, it's extremely tedious.



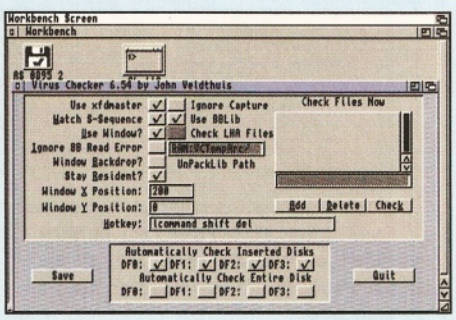
AGraph can transform data into different styles of graph and save them as IFF images.

AGraph will take data and transform it into a graph for you. The data needs to be input in the form of an ASCII file, which you could generate with Text Master, for instance. The exact layout is specified in the docs. AGraph will then display it in several formats for you: area, curve, standard and cumulative histograms and as a pie chart. The results can be saved as IFF files.

Programming**Zone**

● AMOS might not be the most powerful programming language, but it is still one of the Amiga's most popular. This month we've included a utility to help AMOS programmers add a bit more to their language. **PPAccessory** is a utility with a GUI that will load and save powerpacked source code with varying degrees

Utility**Zone**



Virus Checker 6.54

This utility should need no introduction. Virus Checker is one of the most popular and well-known Amiga utilities.

This is the latest version and can detect all known viruses. It happily sits in the background and scans every disk as it is inserted to ensure that no virus can infiltrate your system.

The best place to have Virus Checker is of course in your startup-sequence so that it is started every time you boot up. The installation utility does this by default, but note that you may need to edit the path in your user-startup if you put the program in a different place.



MultiCX

MultiCX is a commodity that can perform many different operations, from mouse-acceleration to screen blanking.

This latest version supplied by the author, Martin Berndt, is fully configurable. To change the settings, click once on the icon and then select 'information' from the 'icon' menu on Workbench. The preferences can be set using the tooltypes.

Subscribers, however, can make use of the separate MultiCXPrefs program that is on this month's subs disk. This adds a GUI to the preferences and makes configuration easier.



MegaNote

If you have a photographic memory and never forget anything, then MegaNote won't be of interest. If you're a mere mortal, then this utility is a gem.

Simply double-click on it and you'll have a Post-It! note clone on your screen. You can scribble notes in it and there are as many pages as you'll need. The notes can be autosaved, so all you need to do is jot down your thoughts and they'll never be lost.

It's easy to use and although the docs are in German, being ever helpful we have added a brief translation for you, with the consent of the authors, of course.

of efficiency to help save you space that code takes up.

● So we don't leave anyone out, we have two titbits for Blitz Basic users. There's **Elmorelib**, a library addition that offers loads of additional functions and comands.

● The star place, though, goes to **LES Debugger**, a whole replacement for the default debugger. Simply copy your original debugger to a safe place (never delete a program until you are completely comfortable with its replacement) and then install the new one. There is ample documentation for both of these, so refer to that for more information.

● The tutorial support files can also be found here. These files complement Toby Simpson's on-going DICE C tutorial, which can be found on page 77.

Technical**Zone**

In addition to the rather excellent Workbench utilities that are on this month's disks, this section has some additions for the more technically-minded who like to fiddle around in the Shell and with the OS.

There are six CLI commands included. To use these you must either copy them to your C: directory or add the path to the Amiga's search path.

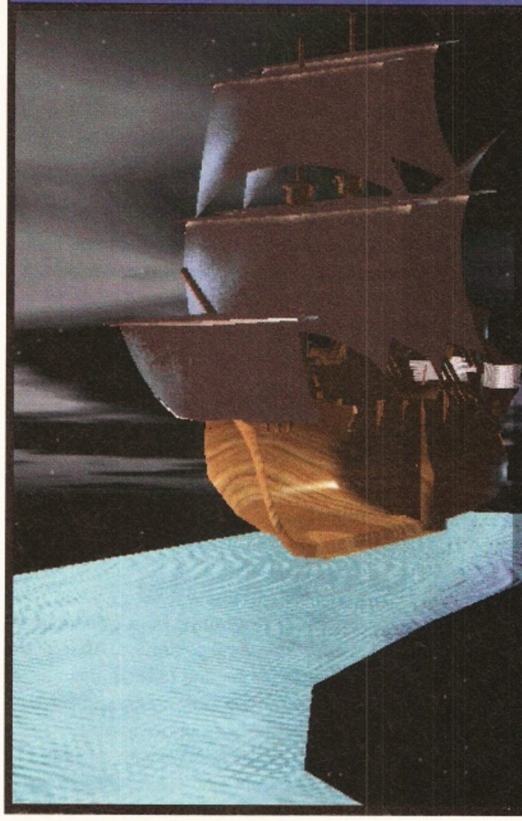
● **About** is a command that displays information concerning any file you feed it. It reports the name of the file; how many blocks it occupies; what protection bits are set; what class of data it is and what format it is. So you can get detailed information on anything from executables to pictures and text.

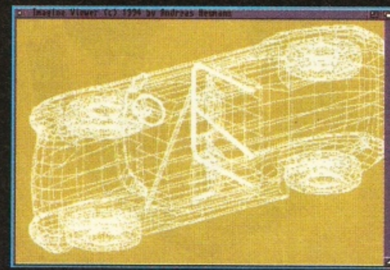
● **BootShow** is a command for use in your startup-sequence. It allows you to display a picture of your choice for a specified amount of time to allow your machine to boot with a more interesting screen than a simple AmigaDOS screen. There are various effects that can be used, including a definable fade. Full instructions are supplied.

● AmigaDOS has a 'run' command that supposedly runs a program without relying on the CLI. **BRun** is a much-needed update that runs a program truly independently, allowing you to close the CLI window from which the program is launched without actually quitting the program.

● **CFN** is a personal favourite. It requires a little installation to run, but makes the use of Shell much more pleasant. Add 'CFN' to your C: directory, make CFN run from your startup-sequence and also edit your Shell-startup to use 'notify. You can now make use of part names in

3D**Zone**

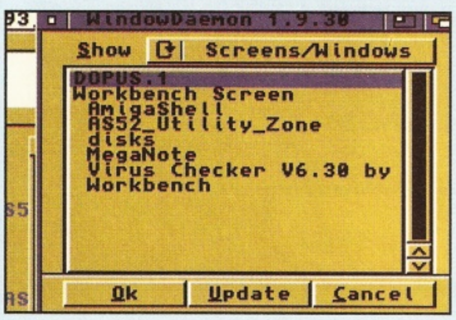




ShowObj displays both 3D object formats.

This month's 3D zone is something of a treat for 3D-users. Not only does it contain six Imagine objects (Amiga, chip, floppy, head, movie light and stand), nor just four more objects for LightWave (55 Porsche, fighter 1 & 2 and galleon), there is also a great utility, ShowObj.

This little program can display both formats of objects and can show them from every side, as well as from a perspective dictated by the user. The objects can be displayed as a box, a wireframe, or as a solid object. The beauty of this program is that you can look at objects without having to load your full 3D program, or, indeed, even if you don't have a 3D program. One tip is to use the box option to choose the angle and then swap to either wireframe or solid to view the object properly. Note that although an icon exists, ShowObj is launched from the CLI.

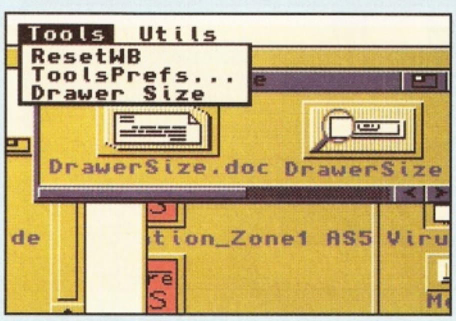


Window Daemon

There are quite a few screen management utilities, but this is definitely the one that I admire most. After you launch it, Window Daemon is activated quite simply by right-clicking in the top right-hand corner of the screen, where the screen cycling gadget is.

A selector pops up, which not only allows you to swap to and activate the screen of your choice, but also to any window on that screen.

So, if you've got several programs opened on that screen, which will mostly mean Workbench, you can jump directly to it.



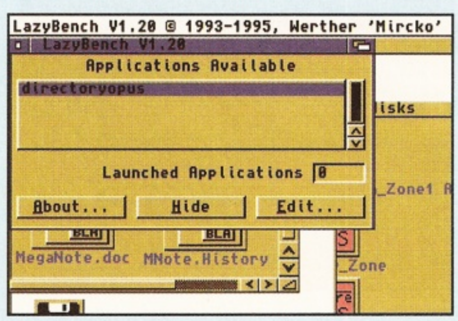
Drawer Size

This is a very handy utility. After it's run, Drawer Size adds itself to your tools menu on Workbench.

When you single-click on an icon, a drawer, or a disk even, and then select it from the menu, Drawer Size will report the size in bytes along the top line of Workbench.

Although the CLI 'info' command exists, Drawer Size is a useful addition that makes Workbench a much more usable environment.

If you like the program, then placing it in your WBStartup drawer will make it a permanent addition to your system, starting it every time you boot up.



Lazy Bench

LazyBench is yet another commodity that can speed up your use of your computer. Essentially it is designed for people with hard drives who have multiple applications buried deep in sub-directories. Instead of wading through the disk hierarchy every time to find the program, a hotkey will pop a screen up and you can click on the program you want to use. Programs can also be selected using the arrow keys.

A menu is used to create the configuration and you can enter this using a WP, or the program itself will help you create one when it detects that the file hasn't been created.



The Creative Zone contains all sorts of clipart, fonts, samples, modules and even a 40K demo.

a Shell. Simply enter the start of the word and then press tab; CFN will find the first match and complete the word, but if it gets it wrong, you can make it continue until you get the correct match.

If you have directories with long names, the CFN saves a lot of boring typing. If you don't enter any text, but press tab, you can flip through the entire file list until you get the correct one.

● When you delete a file, you may be surprised to know that you haven't actually done that. All that is deleted is the file header, which means that although the blocks themselves are now free for use, all the information is still there, until something is written over the top.

This is great if you want to recover the data, with a program like DiskSalv, but not so great if you have sensitive data that you really *do* want deleted. **Nuke** is the answer, because it doesn't just delete the file, it nukes it! The file is overwritten three times with 0s and 1s before being deleted. Use with care, because once it's been nuked, nothing will get it back. Because of its nature, Nuke does not support wildcards to ensure you don't wipe data accidentally.

● **Scopy** is a better version of the Amiga's standard copy command, which is slow, has bad buffers and gives no indication of progress. Scopy rectifies all this and has several progress indicators from the standard dot increment type to a full graphical display. Because of clever programming, the indicators don't hinder the progress and you should notice a speed increase.

● In addition to the commands, there is also a Font datatype for Workbench-users to add to their datatype collection. It's easy enough to install as there is an installation script provided. A set of updated FastMath libraries is included for those who have A4000s and Amigas with FPUs. These updated libraries have been optimised for these systems and faster and smaller, yet still 100 per cent compatible. Before you install these libraries, make sure you have a copy of the original libraries.

Creative**Zone**

As with everything there must be a balance and the AS Coverdisks are no exception. After all the very serious applications and utilities, this section is designed to supply some additional material for the lighter side of computing.

● There is a clipart section with several images that range from electronic symbols for circuit diagrams, to cartoon characters. All the images are in IFF format, so you can load them into any paint or DTP package.

● Speaking of paint and DTP, the Fonts drawer contains 10 bitmap fonts that you can make use of in either type of program, or, indeed, even on Workbench. The fonts range from Outline to Apple to Typewriter and should add a bit of diversity to your work.

Shareware notice!

Remember that a number of the programs on these disks are some form of shareware. AS have compiled the disk with the help of the authors, who have received no fee from AS. So, if you keep and use these programs, you *must* register. Some people only want a postcard, so *please* put in the effort. They put enough effort into creating the program.

● In the Demo drawer you'll find a 40K demo that runs on AGA machines. Not exactly a utility, it is a great display of talent and of what can be achieved in such a small space. Incidentally, we are inviting readers to send their own efforts in this category in for consideration for future disks. For the address, see the Disk contributions box on page 8.

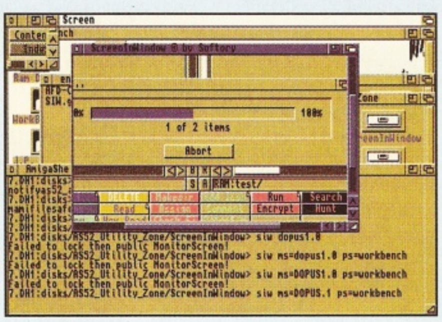
● The Music drawer contains a selection of samples for use in music packages. The samples are both instruments and samples from films and the like. There are also three modules for you to listen to. One is a standard mod, whilst the other two are Chip mods.

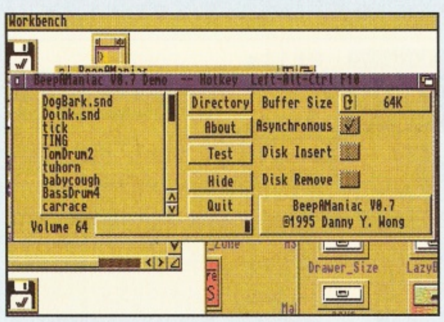
All the mods (but not the samples) can be loaded into the MiniPlay utility that can be found in this drawer. This program is a great little module player with a GUI. It requires two libraries, which are included, to be installed, so do use the 'install' icon. When you select a module, note that the pattern is initially set to mod.%?, so you may want to delete the pattern to display all the files.

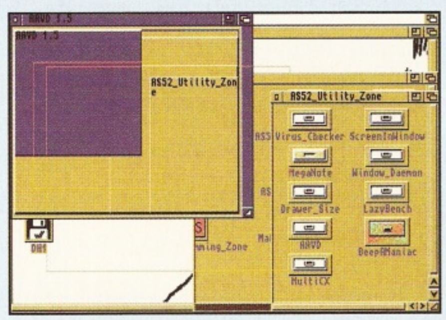
And that is the end for this month. Hopefully, there's something to suit everyone, but we'd like to hear your feedback so that the disks can continue to grow in the way you want them to. Drop us a line at the usual address.

Until next month, then... ■

Utility**Zone** continued...







Screen In Window

I have to admit something quite sad here. I always wanted one of those TVs where you could display a picture within a picture. You know, watch one station and display another in the corner of the screen.

Screen In Window is a utility that can do this on your computer. Because of the Amiga's multi-tasking abilities, this is quite a useful thing to be able to do. For instance if you are copying files, or downloading a program in the background, you can keep an eye on its progress whilst you continue working in your WP or paint program.

Plus, of course, it looks rather neat.

BeepAManiac

When the Amiga wants to alert you – if you make a mistake, or if it finishes a certain task, for example – it flashes the screen and gives you a beep. Now, although this certainly fulfils its function, it's not exactly what you would call exciting.

BeepAManiac can change all this. It patches the DisplayBeep function and allows you to list a set of samples for it to choose from. Now, every time the screen function is used, your Amiga can do anything from sound a horn, to play a Simpson sample to you.

Don't have any samples? Don't despair, take a look in this month's Creative Zone.

AAVD

Some of you may have come across a similar utility on different systems. AAVD is a virtual desktop program. When you launch it, a window will open within which is a representation of the screen itself with all the windows displayed. You can then operate the screens from within this window. If you have a Workbench screen that is much larger than the physical screen, you don't have to scroll around to get to the programs, you can now simply lift them up in AAVD and move them to within visual range.

Apart from the useful aspects of this program, I've got to say, it's great fun to play around with.

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Lightwave 3D Comparisons :

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4 x 72Pin SIMM Slots for upto 128Mb RAM
Built in FAST SCSI-II DMA Interface

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VERSION 4 Now Available For Amiga / PC / MIPS / NT / SGI & DEC Alpha - £ 749

LIGHTWAVE 3D TUTORIAL VIDEOS
Five Available - £ 49 each / £ 199 set

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8 Track, 16-Bit, DAT Quality, Direct to Disk Recording. Timecoded Cuelist. Can be used with Bars & Pipes Professional, the PAR etc.

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4 Track, 16-Bit, Direct to Disk Recording. With Samplitude Software . Ideal for Vlab Y/C's IFR, or the Vlab Motion

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540 MB SCSI 3.5"	£ 189
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420 MB IDE 3.5"	£ 149
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850 MB IDE 3.5"	£ 249
1.08 GB IDE 3.5"	£ 329
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Supplied With Cable, 4 Screws, Software & Fitting Instructions

209Mb Seagate	£ 179
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FASTLANE Z3 (A4000 only)
Takes 256Mb 32Bit RAM £ 305

OKTAGON (A1500/2000/4000)
Takes UPTO 8Mb 16Bit RAM
With FREE GIGAMEM S/W £ 119

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32MB SIMM-32	£ 999
16MB SIMM-32	£ 490
8MB SIMM-32	£ 309
4MB SIMM-32	£ 145
2MB SIMM-32	£ 85
1MB SIMM-32	£ 29

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The KRP "TES30"

Uses "Burned In" Timecode. Controls Upto 5 Machines. RCTC compatible, SMPTE. GPI Trigger. LANC / Panasonic / RS232 etc. Shot Lists, Mixer control, Audio cues, synchronised audio dubbing. Upgradable to 8 parallel control industrial machines RS422. Now with optional Jog / Shuttle and full Videonics MX1 mixer control.

From £ 549

The Amiga reborn

Amiga Shopper sent along our correspondent to report on the outcome of Escom's recent press conference in Frankfurt. The following is the result...



Amongst the 11 speakers at Escom's press conference in Frankfurt were: Bernard Van Tienen, Dr. Peter Kittel, Manfred Schmitt and Petro Tyschtschenko.

"We see in the Amiga the key to **multimedia** technologies for the future."

Manfred Schmitt, Escom Founder and Chairman of the Executive Board of Escom AG introduced the list of 11 speakers attending the recent press conference held by Escom at the Park Hotel in Wiesenhuttenplatz, Frankfurt on 30th May. The speakers were there to explain Escom's intentions towards the Amiga and its technology.

Over 60 other representatives from the European press, distributors, hardware manufacturers and software publishers also attended the conference. The main thrust of Escom's message was that they see the future of the Amiga as a multimedia platform and that they want to be regarded as a multimedia company.

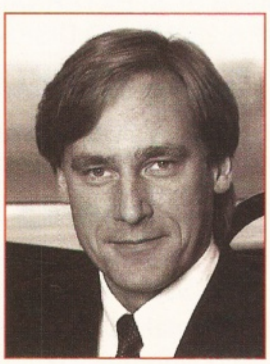
Basically, Escom's primary aim is to become a leading multimedia provider and they see the Amiga and its technology as the key to their success.

Manfred Schmidt said that since they had bought Commodore International, Escom had been absolutely flooded with enquiries and messages of support from Amiga users worldwide. Those users will be pleased to hear that he also said: "We see in the Amiga the key to multimedia technologies for the future". And he praised the Amiga's Operating System saying that it had a "still unmatched multitasking ability".

Petro Tyschtschenko, the General Manager of Amiga Technologies GmbH made it very clear that Escom considered the Amiga to be a superior technology and that they were committed to resume production of the Amiga and to continue development of hardware and software. "Commodore patents and licences are the key to multimedia technology".

We all know that the Amiga has always been ahead of its time as a multimedia machine, even before the term multimedia was coined – and Escom are looking to use its technology in as many ways as possible, including high-end graphic workstations, home multimedia machines, games machines, within third-party multimedia applications and as the basis of a set-top box for interactive TV.

The Amiga represents an amazing price and quality ratio with an unmatched ability for multitasking. As Manfred Schmidt put it, "The Amiga is still a very efficient and inexpensive computer". It has a very low consumption of RAM and "the Amiga Operating System needs eight times less memory than Windows, and it multitasks better than Windows". The quality of Amiga video is outstanding – "superior to the PC" – and it can also be played straight into TV



Manfred Schmitt is the Founder of Escom and Chairman of the Executive Board. He holds a stake of 51 per cent of all Escom's shares.

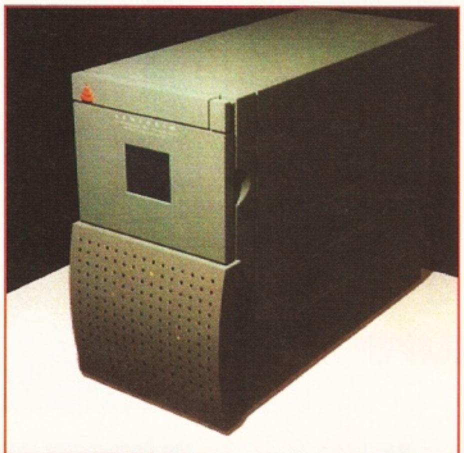


Bernard Van Tienen is a member of Escom's Executive Board. He is responsible for worldwide purchasing.

because it is already PAL and NTSC compatible. All of which make the Amiga the ideal multimedia machine.

Escom also made it clear that the rumour of a finished new Amiga is completely untrue. However, production of an A4000T multimedia machine will start in September 1995 and, apparently, 20,000-30,000 of these A4000Ts are already sold out in preorders.

Production of A1200s will begin in October 1995 and Escom expect to shift enough units of the A1200 and CD32 to meet the Christmas demand. However, they were not prepared to commit themselves to the exact amounts of machines that will be available at that time, or even how much they will cost.



The new light green design of the A4000T. The logo has yet to be finalised.

The names Commodore and Amiga are now to be completely separate. Commodore is being associated with Pentium multimedia PCs and Amiga Technologies GmbH is the new international Amiga company which is 100 per cent owned by Escom. It will have two main divisions, one based in the US and the other in Germany.

One of the reasons given for this separation of Commodore and Amiga is that, apparently, 92 per cent of all PC owners in Europe recognise the Commodore name and the excellent quality that it stands for. There are a couple of logos in consideration to be associated with Amigas, but Escom haven't decided on the one to use yet. The first Commodore multimedia PC Pentium machines will go into production this year and there will be around 50,000 to 60,000 units available at first.

> "The Amiga is still a very **efficient** and inexpensive computer."

Amiga Technologies' headquarters will be based at Bensheim in Germany. Escom are determined that the costs of their distribution network will be tightly controlled – they are not looking for offices in each and every territory. A US distributor hasn't been appointed yet, but talks on the subject are under way. There are around 10,000 A4000s ready for sale in the States. The Tianjin Family-Used Multimedia Co Ltd in China is set to manufacture the lower range of Amigas and also the Commodore 64.

The C64 is a success in China already, but not with a licence, Escom's partner in China has 80 per cent of the games market over there, but they will be concentrating on the CD32. The C64 was compared to the Volkswagen Beetle as far as popularity and market presence went. Escom also want to redesign the CD32 to produce a model that will be stronger competition for the likes of Sony and their PlayStation.

Amiga Technologies will produce a multimedia range of machines with Motorola processors and the Commodore machines will be the Intel-based Personal Computers.

Escom said they have a good relationship with Motorola and that because Motorola only deal with IBM and Apple at the moment, they are looking for a company that can move much more quickly to get their CPU technology into the market.

Escom have also been in close negotiation with Scala and they have announced that the multimedia presentation and information display program, Scala MM300, will be bundled with every Amiga sold from now on.

There are also engineers in Philadelphia working on RISC-based Amigas with Scala and Motorola working alongside them. (Have a look at our interview with Scala on page 30 and the review of Scala MM400 on page 36.)

Escom are also keen to be flexible with the licensing of their technology and they are happy to grant licences to companies who want to integrate Amiga technology in to their own products. One of the projects that Escom are

Petro Tyschtschenko is the General Manager of the newly-formed company, Amiga Technologies.



Jeff Frank is the Engineering Director of Amiga Technologies. He used to work for Commodore as their Director of Development.



Industry talk

We asked a whole load of companies involved with the Amiga if they were going to continue to support the machine in the light of Escom's announcements. We also asked them how they saw their company and Amiga Technologies working together and if they had any new products or upgrades in the pipeline.

Here is what they said – in no particular order.

Yes, we will be delighted to support any new Amigas, as well as to continue support for the older models.

Upgrading the 1200 to an 030-based machine is a tremendous idea, providing that the machine represents value-for-money. Many 1200 users are now beginning to purchase our Apollo 030-based accelerators and the migration to these higher spec processors has already started.

Any new machines need to be backward compatible with previous incarnations and a beefier power supply would be most welcome.

Simon Cobb,
Siren Software

Almathera is confident that Amiga Technologies has the will and the means to bring back the Amiga to the mass-market. With their promised liberal and open licensing, Amiga Technologies will be able to re-kindle the confidence of hardware and software developers. We will support Amiga Technologies with our knowledge and our commitment to the Amiga and are happy to be part of the Amiga revival.

J Bruno Sajno,
Almathera

Commodore failed for two reasons: lack of foresight to the future of computing and a total disdain for the vendors supporting the Amiga. The Amiga technology was at one time far ahead of the PC and the MAC for its multimedia abilities, however, at present, the Amiga is far behind what the PC can do. If Escom is going to resurrect the Amiga it will have to do so with great software – too many vendors are gone now; it will take a major effort on the part of Escom to revitalise this end of the Amiga.

Impulse will continue to support the Amiga as long as we have users to support. We have many new things planned for both the Amiga and the PC. In short, until we hear from Escom, we move forward without their direction.

Michael C. Halvorson,
Impulse

We at White Knight Technology are very encouraged by the recent news from Escom. It is pleasing to see that they have concentrated initially on producing the high-end, professional machines and that they are keen to promote the multimedia facilities of the Amiga.

We hope to work closely with Escom in the future to promote the Amiga platform in the areas of digital video and non-linear editing. Having weathered the Commodore liquidation storm, we plan to continue supporting professional Amiga users around the world with more confidence than ever.

Ian Greenaway,
White Knight Technology

The initial plans of Escom seem extremely promising and I was very pleased to see a higher specification A1300 machine as this could be a great low-cost platform to develop high-end peripherals for. Many of our products have been aimed at the big-box Amigas, due to either processor requirements or expansion limitations, but this could change with the A1300.

We will continue to support the Amiga 100 per cent and I would very much like to see A1200/A1300 versions of Emplant and a 24-bit capacity offered in the future.

New products? Yes, we have several in the pipeline, but it's a little too early to say at the moment.

Paul LeSurf,
Blittersoft

We are delighted about the announcements Escom have made regarding Amiga Technologies GmbH. At last we know that the Amiga has the future it so richly deserves.

We shall definitely continue to support the Amiga, both in our retail and production divisions. Premier Division was formed as a "one-stop" solution for multimedia and desktop/interactive television, based primarily around the Amiga, and we are delighted that Amiga Technologies' main thrust will be in these areas. We look forward to working closely with the new company.

Andrew Gould and Andrew Bishop,
Premier Vision

We shall still be supporting the Amiga range of computers. We have already brought out new economical 24-bit colour scanners for the Amiga and several other products, including hard drives, modems, etc.

We also have several other new products and special offers in the pipeline that will be on offer once Escom have brought out the new range of Amiga computers.

We are looking forward to seeing the new machines that start with the 030 A1300 and the 060 A4000 and we hope that Escom do really well in the future.

Darren Wright,
Gasteiner



Dr. Peter Kittel talks about the way forward for development of Amiga technology.

"Escom are looking to a **great future** for the Amiga architecture."

interested in for the American market is the production of set-top boxes – they have already signed a licensing agreement with VisCorp to this effect.

Tyschtschenko isn't the only employee of Amiga Technologies who used to work for Commodore, Jeff Frank was the Director of Engineering for Commodore and he will be giving Amiga Technologies technical assistance with engineering and manufacturing of Amiga-related products. In fact, the A4000T will be like a new product because Commodore only ever built 1,000 units.

Both the A1200 and A4000 will feature the AmigaDOS 3.1 Operating System and one of the first projects is to be a 68060 processor upgrade for the A4000. Escom are also planning an A1300 with an 030 processor and integrated CD, but this A1200/A1300 new design won't come into effect until January 1996.

The AAA Chipset is a long way into development and Escom want to pursue it, but that's all they would reveal on the subject and they have no plans to put an Amiga card into a PC at present.

Escom are considering two alternatives to further developments for the Amiga: a Power PC equivalent and the RISC-based machine. The Amiga's Operating System will also be



Don Gilbreath of VisCorp, who have already been granted a licence to use Amiga technology in their interactive set-tops.



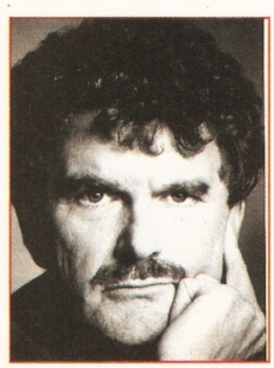
The Commodore logo on the new multimedia Pentium PC, available in August this year.

adapted to the new hardware platform. But Escom are keen that the new machines will be still recognised as Amigas – they are "looking to a great future for the Amiga architecture", according to Amiga Technologies' Head of Engineering, Dr. Peter Kittel.

In his closing speech, Manfred Schmitt said "We want the Amiga to succeed again as it did in the past; we want it to be recognised as an important player in the personal computer industry and we want it to be an interesting alternative to other systems". Fine words indeed, and we should all be encouraged that the Amiga will soon rise again from the ashes of liquidation.

As for David Pleasance, Colin Proudfoot and team no mention was made at the conference. However, as MicroScope magazine (of 24th May 1995) reported, "Commodore UK's future was in the balance last week after Escom announced it had no need for the operation and was no longer in negotiations to buy it".

This report, written by one Leslie Yazel went on to claim that Bernard Van Tienen had "rebutted Pleasance's prediction that Escom would take over Commodore UK". Escom's only comment on Commodore UK was that they were "out of the picture". ■



Prof. Hartmut Esslinger is the President of Frogdesign who are a corporate strategic design consultancy being used by Escom and Amiga Technologies.



An A4000 with Cyberstorm 68040 40MHz running AmiTCP version 4.2 and AMosaic.

"We [Escom] want the Amiga to **succeed** again as it did in the past."



The Commodore Pentium PCs will be fully loaded P75 and P100 multimedia PCs.

The three amigos

The three Amigas that Amiga Technologies and Escom are concentrating on are the A1200, A4000T and the CD32. All three are due for a redesign and the new-style machines will be in production at the beginning of 1996.

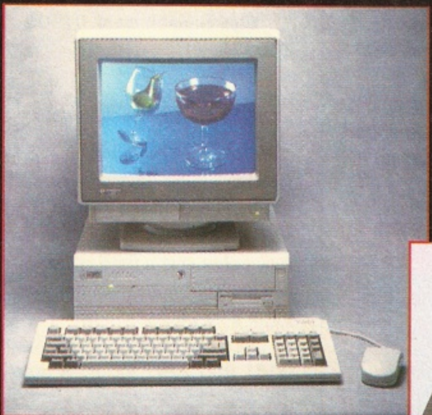
The release of the A4000T will be just like a new product launch because Commodore only ever made about 1,000 of A4000Ts themselves. They will now be enhanced with a 68060 upgrade and will include AmigaDOS 3.1. The A4000T multimedia machine will be in production in September. As we said earlier, 20,000 to 30,000 A4000Ts have already been sold in preorders.

Production of the low-end A1200s and CD32s will begin again in October in time for the Christmas sales, but it won't be until the beginning of 1996 that we see a redesigned A1200 and CD32. Then, the A1200 will be upgraded from an EC020 to an 030 processor and will be renamed the A1300. It will also have built-in support for Fast RAM.

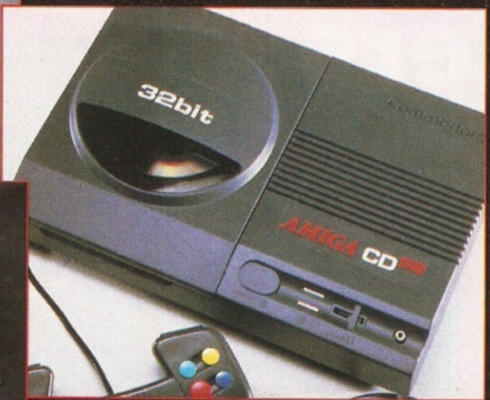
Escom feel that the Amiga is a creative machine and must therefore appeal to creative people and so the machines should look much more stylish than before. They also feel that because they have to fit on to a table, the design should reflect this and it to be designed to be a proper tabletop machine – all reasons behind the mini tower redesign pictured on page 15.

Escom are also keen to have a new logo to put on all of their new Amigas – there are a couple of designs under consideration at the moment, one of which is a very Swedish/Ikea-like-A-with-three-bars affair.

We should have a picture of the new logo in time for the next issue.







Digita have enjoyed an extremely close and productive relationship with Commodore since 1988 and the launch of the Amiga A500. I see no reason why this should change with its new owner, Amiga Technologies GmbH.

Digita is continuing its commitment as Europe's most successful developer of Amiga serious software. With products like Digita Wordworth, the world's most popular Amiga word processor (Amiga Shopper Reader's Awards choice), our new award-winning database, Digita Datastore and, only just launched, the Digita Organiser (featured on the Amiga Shopper Coverdisk, AS51).

Digita has a number of other exciting products under development, including the new Digita Wordworth 4.

Jeremy Rihll,
Digita

We are pleased both by Escom's acquisition of the Amiga and the plans they've announced through their new company, Amiga Technologies. Even though Escom have traditionally sold mainly PC-compatibles direct to end-users, only through their own stores, the facts that they are Europe-based, obviously profitable and already familiar with the logistics of manufacturing and getting their products to the market, means the Amiga should be in good hands. Many of their existing staff are ex-Commodore, so they are ideally placed to make the right things happen quickly.

Since the demise of Commodore last year, we've actually put more effort behind three key product areas within our business, in anticipation of today's situation where Amigas will soon be back on sale again. We already have a good dialogue with Amiga Technologies which is allowing us to ensure our future plans are on target.

In the past year, we've strengthened our Blizzard and Cyberstorm accelerators which, it seems, are now the market leaders. This has been emphasised by the recent announcement that the new 68060 A4000s will have their CPUs running courtesy of Cyberstorm technology.

There's still a lot of growth in the area of video connectivity for the Amiga – we've just announced an enhanced version of our ProGrab 24RT real-time frame grabber and digitiser. This now includes an S-VHS Interface as standard – with no increase in price. Also, we'll soon have a new genlock to add to our video range, with a price/performance that will cause a stir.

The other company with which I am involved, SoftWood, has been busy both developing new releases and enhancing existing products. This last year we've launched Final Data which is already at release 2, and the launch of our all-new spreadsheet, Final Calc is imminent.

Giles Harwood,
Gordon Harwood Computers
and SoftWood

News

This month in Amiga Shopper's news pages: Premier Vision's brand-new rendering engines; GoldenGate offer; ACD-300 price drop; new magazines from Future; animated colour fonts; new version of LZX; and much more.

Premier stuff

Premier Vision have a whole host of new products and older products at reduced prices lined up for you.

Firstly, there is their brand-new rendering engines – the Warthog series. These are DEC Alpha-based machines and Premier reckon that they can run up to 30 times faster then a Pentium 90.

Impressive stuff indeed. We'll be taking a look at the Warthog in our next issue. Premier are at present using a Warthog to test a beta version of LightWave 4 – which will also be appearing within the pages of Amiga Shopper shortly.

Premier Vision have also released a video called Pro Flying Logo Techniques – professional LightWave artist, Tony Stutterham explains his techniques for creating high-end 3D logo animations. The video will set you back £179.

Still on the subject of LightWave, you can now create excellent hair effects with Fibre Factory from Premier Vision. Hair-raising indeed for only £39.95.

Next, there's Version 2 of Anim Workshop. This new version only costs £69.95 and enables you to create, play and edit your animations – you can even add sound to your Amiga animations with Anim Workshop 2.

Not content to stop there, Premier Vision also offer Humanoids which contains realistic models of four human beings – a man, a woman, a strong man and a child, all of which are easy to manipulate to create particular poses or motion. Humanoids costs £170 plus VAT.

And to round off, Premier Vision are selling Pixel 3D Pro Version 2 at a reduced price of only £129.

To contact Premier Vision about any of their products, just call ☎ 0171 721 7050.

Shop till you drop?

If you thought it was safe to go shopping over the Internet, beware. According to a recent report in The Times, banks are advising clients that credit card transactions are not a good idea and that they shouldn't use their personal identification numbers for buying goods over the Net.

Around a staggering three million companies advertise their products for sale on the Internet, so there's a huge temptation to shop the easy way and just tap in your details and numbers.

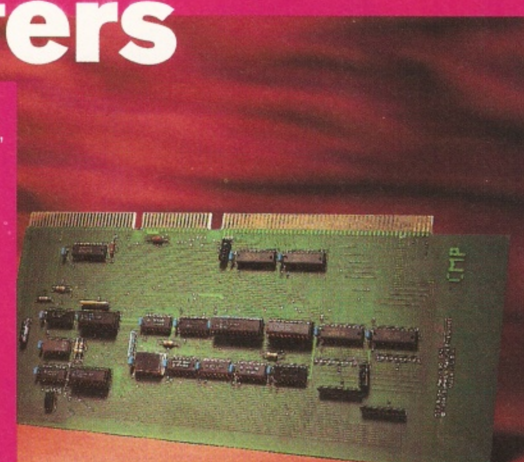
Apparently, Microsoft and Visa International have agreed to co-operate in dealing with this problem, so wait till they give us the go-ahead before you sign your hard-earned cash away.

Golden offers

If you read our review of the GoldenGate (GG2) Bridgeboard in issue 50 (90 per cent and a Star buy), you may be interested to know that Eyetech have an introductory offer to the board, which is a bundle consisting of: an Ethernet card, a multi I/O card (2x serial, 1x parallel, 2x IDE), a 4800/9600 data/fax modem and the GG2 board (plus all drivers). The bundle will set you back a very reasonable £200.

Eyetech also sell Amiga 1200 hard disk kits, which include all cables, a nylon insulation sheet, a step-by-step guide, earthing straps and an antistatic kit for the drive fitter. A 428Mb kit costs £179 whilst the 545Mb kit goes for £199.

Eyetech can be contacted on ☎ 01642 713 185.



Titbits

Tamworth Computer Show

If you happen to be in Staffordshire on 2nd September, why not drop in to the Tamworth Computer Show at the Assembly Rooms, Corporation Street, Tamworth? There will be 50 stands covering a range of platforms, with some Amiga bargains promised.

The tickets only cost £1.50 on the door. If you order them before 1st August you can get them even cheaper – send your order to: Ticket Allocation, 8 Healey, Lakeside, Tamworth, Staffs B77 2RF.

And it's all in a good cause too, because the profits from the ticket sale will be donated to cancer research.

Aural Illusion 2

Seasoft have announced the release of Aural Illusion 2, costing only £20. This professional sample editor offers 55 manipulations including eight filters.

The editing functions range from loudness to copy into. It supports various file formats such as IFF, Wav, Voc and Raw. All the processing is done in 32-bit format and stored in 16-bit format.

The only system requirements are Workbench 2.04 or above and 2Mb RAM.

Call Seasoft on ☎ 01903 850378.

More mice for your money

Golden Image have announced the launch of Mega Mouse Plus. This new mouse features an eight foot cable and a third active mouse button and will set you back £15.95.

Contact Golden Image on ☎ 0181 900 9291 for order details.

Link in the chain

If you own a Cambridge Z88 portable computer and want to link it up to your Amiga, then get in touch with Sector Software because they have a software and cable linking system that sends ASCII 0.255 data from the Z88 to your Amiga and vice versa. The package costs £25.

Call Sector Software on ☎ 01772 454328 for further details.

Price reduction

Videoworld have slashed the cost of their Nexus Pro Reference Library CD-ROM from £49.99 to £19.99. Amiga Shopper reviewed this CD in issue 47 where we gave it a hefty 90 per cent and a Star buy award.

If you're an Amiga desktop video enthusiast and are after a collection of backgrounds, fonts and sounds, then contact Videoworld on ☎ 0141 641 1142.

Prehistoric bargain

Another CD-ROM to be reduced significantly in price is Insight: Dinosaurs from Optonica.

This CD was produced in association with the Natural History Museum and you can now pick it up for only £19.99, that's a reduction of £20!

For further information, call Optonica on ☎ 01455 558282.

Moving home

Foundation Imaging have moved to a new address. You can now contact them at 27525 Newhall Ranch Road, Suite #9, Valencia, CA 91355, USA.

Their phone number is now ☎ 001 805 257 0292.

The Room Upstairs

We interviewed the people who set up the graphics company The Room Upstairs on page 32 of last month's issue (issue 51), but forgot to include a contact number for them.

So, if you are interested in their work and you want to know more, then you can reach them on (phone/fax) ☎ 01923 445467.

Technosound Turbo 2 Pro

Technosound Turbo 2 has been updated to a new professional version. The layout has been restyled and the software has been enhanced.

The software will run with either 8-bit digitisers (supplied), or with an advanced 12-bit sampler.

Astute observers will have noticed Technosound Turbo 2 on the cover of our sister magazine, Amiga Format. AF have also got an upgrade offer for readers to purchase the 8-bit version for only £29.99 and the 12-bit for £59.99.

New Dimensions, the distributors, can be contacted directly on ☎ 01291 690933.

CD-ROM or optical drive?

The problem with CD-ROM drives has always been their read-only capabilities. Yes, it's great to get 650Mb on one disk, but we always want more; we want to be able to write that much as well.

The new Panasonic drive from Hi-Q could be the answer. Not only is it a quad speed CD-ROM drive, but you can drop an optical disk into the same tray and write and re-write 650Mb.

The prices start at £569.95 for an internal unit (external casing £60) with 650Mb cartridges for £50.

We'll bring you a full review as soon as we get our grubby mitts on one! Hi-Q are on ☎ 0181 9092092.



It can't decide if it's a CD-ROM drive (left) or an optical drive (right).

Vision on

If you use LightWave 3D, but you need some help or advice with this excellent 3D rendering program, you should try getting a place on one of Premier Vision's seminars. The seminars will run throughout July with half-day introductory seminars every Wednesday.

The one-day courses are divided into four categories: basic modelling; advanced modelling; camera, lighting and animation techniques; and surfacing and texturing for professional results.

The half-day course costs £50 and the full-day courses cost £200 each. However, these courses are very popular, so we can't guarantee that there will be places available.

Call Premier Vision on ☎ 0171 721 7050, or fax them on 0171 721 7049.

Aiwa ACD-300

Aiwa have dropped the price tag on one of the sexiest-looking CD-ROM drives on the market. The ACD-300 is an external SCSI CD-ROM drive which is more than just a double-speed CD drive. It features audio-specific controls and output to truly make it a useful audio CD player.

The LCD display offers not only information about the type of CD in the drive, but also the usual information that we've got used to with audio CD players, but failed to demand on our CD-ROM drives. The LCD display shows the track number and time elapsed as well as SCSI ID numbers and information on Photo CDs. The cost is £149 from Aiwa ☎ 0181 897 7000.



Sister act

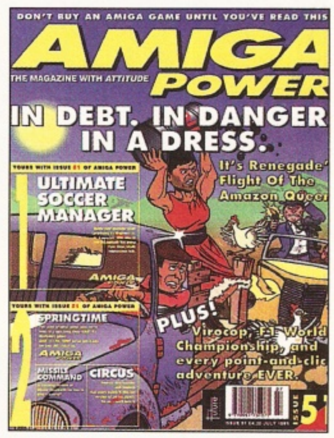
AMIGA FORMAT

From day-to-day to the last syllable of recorded time it's the same. The Amiga Format offices are bombarded with questions. Letters, faxes, E-mails, telephone calls – all from people wanting information desperately .

Well, we thought it was about time we put an end to it, so in our next spectacular issue we will be answering every question you ever had – probably.

And if that isn't enough, there will also be features on processors and the MUI utility, and reviews of Organiser, ProVector, Sensible Golf and Premier Manager 2. See you there.

Nick Veitch,
Editor,
Amiga Format



Phew, truly things do work in mysterious ways, as this month's Amiga Power proves conclusively, for we ended up with enough reviews, features and previews to *exactly* fill the mag. Only a true cynic would call that coincidence.

Point-and-click adventure games? They're a laugh, or *are* they? We investigate like never before and still find time to review Virocop, Flight Of The Amazon Queen and F1 World Championship Edition.

Funny, incisive *and* two disks on the front (as usual), Amiga Power 51 is out now. You can't miss it, it's the one with a burly transvestite on the front.

Cameron Winstanley,
Editor,
Amiga Power

Little Gem



Gillett Multimedia have launched the Little Gem micro audio mixer, produced especially for Amiga musicians. It features two-channel in and out sockets and has controls for bass, treble and volume. It has pan controls for the stereo positioning of each channel.

The Little Gem can be run from batteries or mains and so steals no power from the Amiga. As a sound-processor it can be used to filter sounds before sampling and during playback for when outputting to tape or DAT from the Amiga.

It retails for £69.95 from Gillett Multimedia ☎ 01353 669203.

On the ball

We can now report success with ShapeShifter, the Mac emulator mentioned in Silicon Chameleon, our feature on emulators this issue, page 38. After several problems with the program, we finally succeeded in getting correct ROMs as we went to press, but we haven't time to fully rate the program.

Also, we reported the bugs we found in Flexi-Link, page 47, to the author, who has acted on them and released an update. We shall be taking a look as soon as the new version arrives.

Needless to say, we'll keep you updated on how both of these progress.

Animated fonts



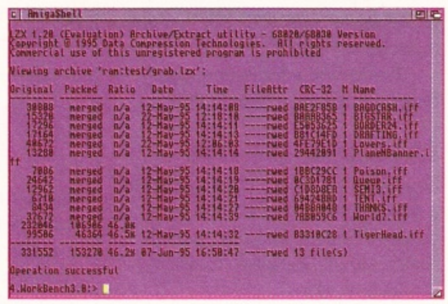
A still from one of the 12 animated MovieFonts collection.

Diskotech have developed a new collection of animated colour fonts for Amiga video enthusiasts. The fonts are compatible with a range of packages from Deluxe Paint III upwards. They work on all Amigas and in all screen formats.

The 12 fonts can be used for both animated and static titles and additional graphics enlarge the mix-and-match capacity.

The new 11-disk package, called MovieFonts, is available from Diskotech for £35 incl. Diskotech are on ☎ 01591 620242.

LZX 1.2



The new version of LZX is butt-kickingly fast.

Serious Amiga users will already be familiar with LZX, the new archiver that outstrips the Amiga standard Lha. A new version has now been released that improves performance in both speed and compression.

We've been so impressed that it is now the new archiver used to cram all those goodies on to AS Coverdisks. Version 1.2 has yet more up its sleeve since it can now de-archive Lha files, with the exception that it does it 10-35 per cent faster than Lha!

Evaluation copies should be available from PD houses (or you can find the whole archive on Amiga Format's disks issue 74) and registered users, who have their keyfile, will be pleased to know they need only get the new registered archive (again from a PD house) to upgrade.

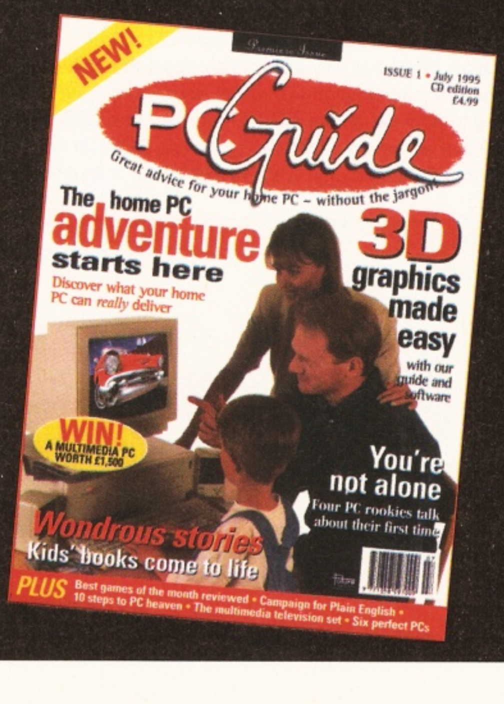
New magazines from Future

PC Guide

Not content with recently launching PC Attack, SFX and Total Football, Future Publishing have added yet another new magazine to their already fine stable of thoroughbreds.

PC Guide is monthly and is aimed at new users of home PCs and intends to make life less confusing to the complete beginner. The title promises to take "a straightforward, practical approach, helping new owners of multimedia PCs to discover the full benefits of their hardware and software."

There will be two versions of the magazine every month: one with a CD mounted on the cover; and the other with a floppy disk. The CD version costs £4.99 and the floppy version is £3.99. The first issue is in the shops now. If you've just bought a PC, you can't afford to miss it.



.net

The .net Directory

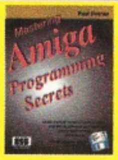
Future Publishing doesn't rest on its laurels for long, because on Thursday, 29th July you'll also be able to buy The .net Directory.

The .net Directory is your essential guide to the Internet. It consists of eight sections: Arts & Entertainment, Sport & Leisure, Lifestyle, The Net, Computing, Business, Academic, and Bizarre – something for everyone, in fact.

The .net Directory is a reviews-based, bi-monthly, listings-oriented magazine closely linked with Future Publishing's .Net mag. And it only costs £4.99.

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PC Emulation



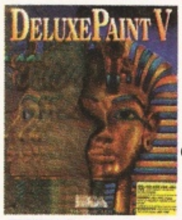
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Image import

It has been said that a scanner is probably the third most popular peripheral that people add to their Amigas. Having spoken at length to some of the manufacturers of scanners, **Larry Hickmott** *can well believe that statement to be true.*

"The hand-scanner is the **cheapest** and most portable, while the flatbed delivers the best quality, but requires a higher-end Amiga."



An example scan done by the highly recommended Power Colour scanner.



An example scan done by the Alfascan 800.

The word scanner sounds so hi-tech that many people aren't sure what it means and which one will suit them best. That's why I'm sitting here surrounded by some of the most brilliant pieces of equipment available today for those wanting to import images into their Amigas.

Before we look at these, though, I feel that it is worth mentioning two other methods of bringing pictures into your Amiga, so that you have the full picture before you dip into your pocket to purchase a scanner. You could, for example, use a video digitiser or PhotoCD. Both have advantages and disadvantages and before we get down to the business of reviewing some scanners, a word or two about these options.

Roll the video

Video digitising is one, for example. This is a term which describes a piece of hardware like ProGrab or Vidi Amiga, that can convert a video signal into a form the Amiga can understand. Digitising, however, isn't very good for importing images that are already on paper, such as photographs, or for trying to capture line art and textual documents.

Another drawback to video is the fact that video digitising is also a low-resolution medium which is important to remember if you are going to output your work to paper. This is because DTP in the main relies on high-resolution images.

The second alterative is PhotoCD, which to my mind is more accessible than video digitising, because most people nowadays have access to a camera of some sort and all that's needed to complete the package is a CD-ROM drive. This latter piece of hardware enables you to drag the images off CD and on to your Amiga's hard disk. PhotoCD, however, like video digitising, is best suited for capturing people and objects and not pictures and text already on paper.

Which leaves scanning. Like the other two methods, scanning has its own advantages and disadvantages. On the plus side, scanning is great for capturing photographs, line drawings, illustrations and so on. It can also be used in conjunction with some suitable software to convert pictures of textual documents, into text that can be edited in your word processor.

One of the disadvantages lies in the fact that you can't use a scanner to take pictures of people and objects. To do this, you have to capture the object or person on film. You can then have those pictures printed at a photo shop before using your scanner to import the images into your Amiga. All this could be done within a couple of hours. In contrast, if you were using PhotoCD, you would have to wait as many as 10 days for the CD to be 'developed'.

Decisions, decisions

Having decided on a scanner as your choice for importing images into your Amiga, there is the small matter of choosing the scanner you require for the type of work you do. At the time of the review, the number of scanners to choose from if you own an Amiga was fairly small, although this is set to rise dramatically over the coming months leading up to Christmas. This is mainly thanks to the Squirrel SCSI Interface and some development work by Amiga software publishers.

Nova Design, publishers of ImageFX 2.1, have just added support for the HP ScanJet range of flatbed scanners, on top of the support they already have for the Epson family of scanners. Nova Design are also starting development on software for Epson scanners with SCSI Interfaces, such as the Epson 6500, 8500 and 9000. I also believe Power Computing will move in this direction.

Almathera, publishers of the very popular image processing program Photogenics, are also talking of bringing out scanner modules for Photogenics at realistic prices. It doesn't end there though. Gasteiner have also told me about a 2,400 dpi flatbed scanner they are now selling for £399, including software for the Amiga. This is sure to be out and about by the time you read this, so keep your eyes peeled for a review in Amiga Shopper.

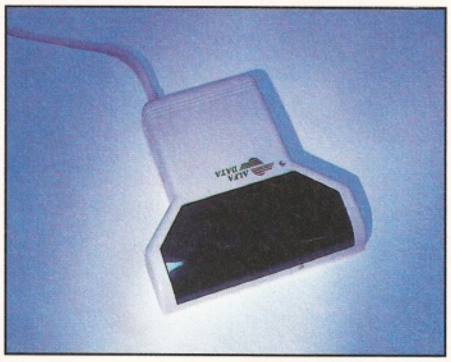
Crossroads

There are two main types of scanner that Amiga-owners are likely to come across; the flatbed scanner and the hand-held variety. Of the two, the hand-scanner is the cheapest and most portable while the flatbed delivers the best quality, but requires a higher-end Amiga.

Once upon a time, the price difference between the two types of scanner was huge. Flatbed scanners sold for at least £700, while

▶ 24


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The Alfascan 800 is a high-resolution hand-scanner that produces good quality line art, but is sadly let down by software that needs to be much more powerful.

hand-scanners generally sold for about £200. Now you can get flatbed scanners for less than £500, while hand-scanners still cost between a £100 and £200. The old argument of flatbed scanners being out of reach of everybody but the very rich, no longer holds any water. In some cases, the difference between a flatbed and a hand-scanner is less than £200.

Which leads us to quality and whether it's worth spending that extra money on a flatbed. This decision is strictly a subjective one and if pushed, I would say the extra quality and convenience of a flatbed is definitely worth it. hand-scanners, for example, are restricted to small images (no wider than four inches) unless you have the time and patience to try and join two halves of an image together. Scanning an image with a hand-scanner is also an art that takes time to master, whereas scanning images with a flatbed is as easy as making a photocopy.

I've been down both roads having started out with a hand-scanner and it's hardly surprising that I'm much happier with the flatbed type. When asked if the hand-scanner has any advantages, it's difficult to think of any, other than price and portability. Price, however, is, as we know, a big advantage these days and is not to be underestimated. Especially when you take into account the extra hardware you need for your Amiga when using a flatbed scanner.

Very handy

That is why the hand-scanner is still the most popular choice for Amiga-owners and explains why there are more hand-held scanners than flatbeds in this review.

A package for a hand-held scanner usually consists of a scanning-head, an Interface, a power supply and some bundled software so that you can use that scanner with your Amiga. The first thing you will notice about a hand-held



The Alfascan 800 comes with its own software which is a bit quirky, e.g. saving images like this in black-and-grey instead of black-and-white.

scanner is that most of the scanner-heads look very much the same. In some cases they are the same, as many scanner-heads are manufactured by the same company and then rebadged.

Appearances, though, can be deceptive and although many scanning-heads may appear to be the same, what's under the hood can vary dramatically. Take the two Powerscan hand-scanners. These heads look very similar, but the technology used under the Shell is very different. This is why it's important to look very closely at a scanner before handing over your money.

For example, you may decide that because you only have a black-and-white printer you only need a monochrome scanner. This couldn't be further from the truth because the quality of the greyscale images (photographs in other words) you can get using a colour scanner is much better than similar images scanned using a monochrome scanner. This is evident in the samples produced for this review.

Another factor you might want to look at is the resolution of the scanner. If you scan a lot of black-and-white sketches or line art, a high-resolution scanner is in a lot of cases going to be a better choice since the images will print better. Let's say you have a black-and-white logo an inch big that you want to use on a letterhead and the printer you are going to use for printing your letterhead is the Epson Colour Stylus.

This printer can produce dots 1/720th of an inch because it has a maximum resolution of 720 dpi. In order to print your logo the same size as the original, without any jagged edges appearing, you'll need to scan it at a resolution that closely matches that of your printer, which in the case of the Epson Stylus, is 720 dpi.

Scanning photographs is less dependent on resolution and more on the number of colours the scanner can recognise. This is why a 24-bit scanner produces much better quality photographs than a 2-bit scanner that can only produce black dots in amongst white space.

Which leads me to the factors I will be taking into account in judging the following scanners. Each scanner was tested by scanning three items: a colour photograph, a piece of line art and some text. The final percentage is based on the quality delivered in all three tests against the cost of the scanner.

Alfascan 800

From Golden Image UK comes a high-resolution black-and-white hand-scanner. Whereas most hand-scanners these days have a maximum resolution of 400 dpi, the Alfascan 800 enables

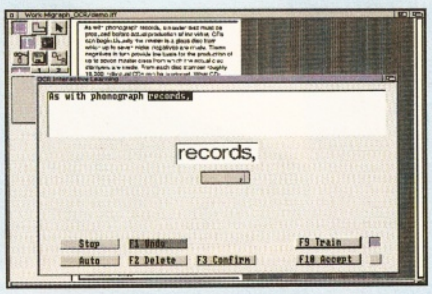
OCR: converting a picture into text

Have you ever had to type out a load of text from a book thinking that there must be an easier way? Well there is. It's called OCR, which stands for Optical Character Recognition. Take the situation I find myself in every month with lots of nicely type-written letters that I need to get on to the pages of my Amiga publishing magazine Em. The job of typing these out could take hours, but by using OCR, this is reduced to minutes.

I have to admit to using a package on the PC for this because as far as I know, no OCR package on the Amiga as yet supports flatbed scanners. What there is though is Migraph OCR, which enables you to load in scanned text that has been saved to disk as an IFF-ILBM. The text on the page can then be converted to ASCII and edited in a word processor.

Migraph OCR also supports many hand-scanners, which lets you scan a column of text direct from the software and immediately process it. This is fine for columns of text less than 4 inches wide, but once you get text in columns wider than that, the whole process becomes quite painful.

The accuracy of the conversion from picture to ASCII text, depends on the training you give the software. You can, for example, train the software on lots of different types of



When it comes to converting scanned text into ASCII, Migraph's OCR software is great.

text and once it's built up a large enough dictionary for itself, the software in many instances can be left to convert scans automatically, making a minimum of mistakes.

To make use of this OCR software, you will need a hard drive and a fair wack of memory, because text for OCR really has to be scanned at a fairly high-resolution so that the text doesn't start to break up, something which can cause the OCR software all sorts of problems. For your OCR software, call either Golden Image ☎ 0181 900 9291, or Power Computing ☎ 01234 273000.

you to scan images at 800 dpi, providing you have the necessary memory in your Amiga.

Costing £99, the Alfascan 800 package comprises an 800 dpi black-and-white scanner, an Interface which plugs into the parallel port, Alfascan software and an AlfaData scanning ruler for helping you to perform straight scans.

The most notable part of the package is the scanning-head. It has two modes, high and low, selected using a switch on the bottom of the scanner. In high-resolution mode, you can scan using resolutions from 500 to 800 dpi while in low resolution mode, the available resolutions range from 100 to 400 dpi.

Other buttons include those for making the scan lighter or darker, selecting the resolution and, finally, a button which is depressed when you want to scan your image. These are all quite normal on a hand-scanner.

The Interface joining the scanner to the Amiga, consists of a small plastic casing attached to a ribbon cable which in turn connects to the parallel port. There is, however, no through-port on the Interface preventing you from attaching a printer at the same time. A real bind considering how difficult it is to remove the Interface from the Amiga without damaging the ribbon cable.

The software for the Alfascan 800 is more or less just for scanning and little else. There are no editing tools, for example, although it does come with a function for merging two scans together so you can scan a full A4 sheet.

In practice, this takes a lot of work to get right and is only for those with a lot of patience and low blood pressure.

When saving line art scans to disk, I was amazed by the software's persistence in saving a two-colour image as black-and-grey and not black-and-white. This can, however, be easily corrected in DPaint or a similar painting program. Greyscale images can be created within the software from the dithered black-and-white information coming from the scanner.

Alfascan 800

A no-nonsense scanner that is great for doing OCR and line art. Because of its high-resolution head, you can produce huge scans of logos which when scaled down in your publishing software print sharper on high-resolution laser printers.

Price: £99

Supplier: Golden Image UK

Contact: 0181 900 9291

Verdict: 82%

Alfascan Plus

My, how times have changed. Not so long ago, a hand-scanner with OCR and TouchUp would have set you back a pretty penny, but nowadays, the lot costs less than £140.

This package is aimed at the person wanting to dabble in a bit of everything, from scanning line art and photographs, to converting type-written text to ASCII that can be edited in a word processor.

The hardware is based around a tried and trusted scanning-head which enables you to scan at resolutions from 100 to 400 dpi in modes for both text and photographs.

The scanner is linked to an Interface that plugs into the parallel port and is powered by separate PSU (Power Supply Unit). For those with a printer, there is no through-port on the Interface, which means shutting down your computer each time you want to swap from the scanner to the printer. The Interface is also a handful to remove.

With the scanner comes a bundle of software including the much heralded TouchUp 3, OCR software and Merge It, all from Migraph. The program most users will take advantage of with the Alfascan Plus is TouchUp.

This program, which is starting to show its age, is much more than just a scanning program. It's more like a black-and-white DPaint and, as such, is extremely versatile. It enables you, for example, to crop large images, remove isolated pixels and if required, enables you to clear unwanted bits and pieces or add new ones.

Where TouchUp falters is with its functions of converting a dithered black-and-white image to a greyscale one. Not that it doesn't do a good job, it's just the functions to save the image to disk or display it on-screen are very outdated. Take the Save As a Greyscale feature. You get a number of choices, but the only one that produces a 256 greyscale save is one in the TIFF format.

All well and good if you have a program that will convert TIFFs to IFF-ILBMs, but clearly not so good if you don't. There is a 'Save As 24-bit' button, but this has never been 100 per cent successful and I'm sure it wouldn't take a lot to change it to a more logical 'Save As 8-bit' button, saving the user the hassle of having to convert TIFFs to the Amiga format of IFF-ILBMs.

Making up for this hiccup is the OCR software which is truly superb. As for the

▶ 26

Scanning software

Getting the image into your Amiga is one thing, altering it is usually quite another. You might, for example, scan a photograph and want to add some text to it. To do this with a 24-bit image you'll need a program that can work in 24-bit like Photogenics, Art Department Professional, ImageFX, ImageMaster or Brilliance 2.

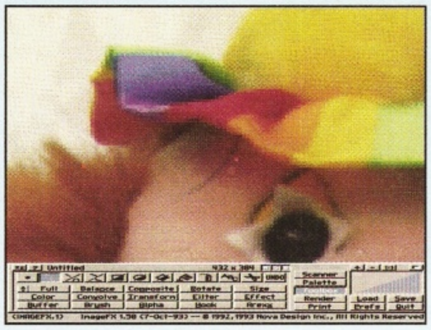
Some of the best value packages are ImageFX 1.5 (£99), ImageMaster (£79) and Photogenics (£59). They will all enable you to carry out many alterations that no paint package or scanning software will.

Another program worth a shout is DPaint 5. It can be used for making unwanted people or objects disappear or to compose two or more images to make a montage.

As you can see, the hardware is not the only important factor in the scanner equation. The software plays a very important role and anyone wanting to do a bit of everything will need an OCR package like the one from Migraph, a paint program such as DPaint V and an image processing package like Photogenics, ImageFX, Art Department or ImageMaster.

This will not only require a fair wad of notes to acquire the software, but even more of the legal tender to boost your hardware so that it can handle all this power. Two things you will definitely need if you want to play with images seriously, is a big (250Mb plus) hard drive and lots of memory.

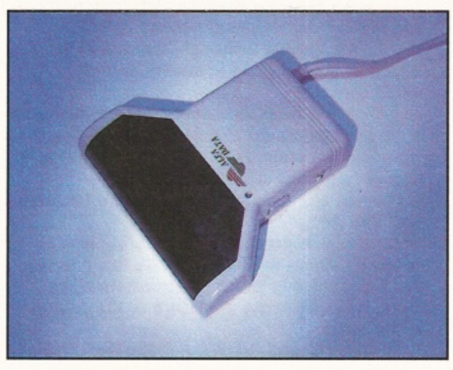
If you don't have either, on the one hand you'll find yourself limited to working with low-resolution pictures and, on the other hand, you'll soon run out of storage space for them.



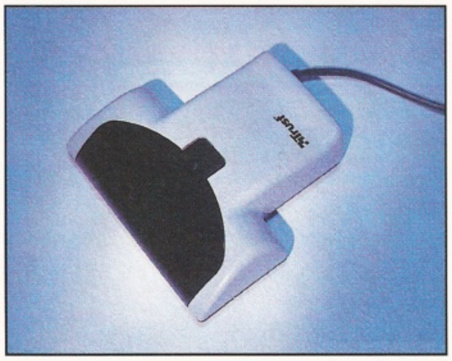
Programs like ImageFX can be used to successfully remove unwanted lines like this piece of thread that spoils an otherwise good photograph.



Despite the appearance of having used a star filter to take this picture, the special effect has actually been added by using ImageFX 2 from Silica Systems.



The Alfascan Plus is possibly the best all-round package with software for scanning, OCR and merging two scans together.



The Powerscan Colour is the only colour hand scanner available at the moment for Amiga owners. It comes from Power Computing and what a good one it is too.

Merge-It software, it unfortunately wasn't included in the package for review, but past experience with Merge-It has taught me that it's very easy to use.

Alfascan Plus

The Alfascan Plus is a very good-value package, especially considering all the software that is bundled with it. Pity there is no through-port on the Interface.

Price: £139

Supplier: Golden Image UK

Contact: 0181 900 9291

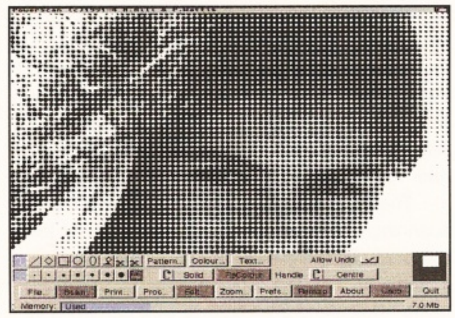
Verdict: 87%

Powerscan Colour

This is the only colour hand-scanner available at the moment for the Amiga. This is a far cry from 18 months ago when you had a choice of three colour hand-scanners, but, unfortunately, all of these have now disappeared leaving only a single mind-boggling 24-bit model from Power Computing.

I say mind-boggling, because the 24-bit head is capable of seeing up to 16.7 million colours compared to 4,096 for the old 12-bit heads and 262,144 colours for an 18-bit scanner.

The new Power scanning-head is an all-singing-and-dancing one, controlled from the accompanying Powerscan 4 Professional software. To complete the package, is the unique Power Computing scanning Interface, complete with a through-port so you can attach a printer to your Amiga without having to keep swapping cables.



Both the scanners from Power Computing come with Powerscan 4 Professional, a program that has lots of tools for editing your pictures.

In use, the Powerscan Colour is not as easy to use as a similar greyscale model. This is because the scanner has to pick up a lot more information from the image being scanned than a greyscale model would have to. This means the scanning-head has to be moved very slowly over the image and if you move it too fast, you'll find the scan is aborted.

The scanner is not just for colour scanning though. The software lets you choose from modes for greyscale and black-and-white images. The mode most will want to use is Super Colour, however, and providing you have the patience, the scanner will deliver quite superb results for a colour hand-scanner.

Although the final processed image didn't quite match that of the much more expensive Epson GT-9000, it was a marked improvement over previous colour hand-scanners reviewed here in Amiga Shopper in days gone by.

The only criticism I have is that colour images contain a lot of contrast after being scanned, but this can be reduced by altering the gamma and contrast using an image processing program such as Powerscan 4 Professional or ImageFX. By doing this, the results from the Powerscan Colour can be fine-tuned so you end up with a superb-looking picture.

Just as impressive are greyscale images produced by the Powerscan Colour. These are true greyscale images and therefore the quality is quite a lot better than similar ones from black-and-white scanners.

I also found that by using the Super Colour mode, I could produce quite interesting looking greyscale images with a hint of colour in them. This produced results that

Jargon busting

n-bit – When working with graphics, a term you will come across very often is 8-bit, 24-bit, 30-bit and so on. The term n-bit simply refers to the number of bitplanes, which in the case of 24-bit is 24. The more bitplanes you have, the more colours you have to play with. A 24-bit image can, for example, contain as many as 16.7 million colours while an 8-bit image contains only 256.

Bitmap – When a scanner converts a photograph or line drawing into a digital form the computer can understand, it is made up of pixels that form the building blocks for the image. This type of picture is commonly called a bitmap and there are various formats available such as IFF-ILBM, GIF, PCX, JPEG, BMP, TIFF and others.

CCD – An acronym that you will frequently see when reading about scanners. CCD stands for Charge Coupled Device and is a type of sensor used in scanners and video cameras.

Digitiser – A term commonly used to describe a piece of hardware that converts the signal from a video source (TV, camera or tape) to a digital form that is understood by the computer. Examples of digitisers are ProGrab and Vidi Amiga.

Dithering – A process of simulating lots of colours using a mixture of just a few colours. For example, it is possible to simulate the colour grey by using a mixture of black-and-white dots.

Gamma – A method of adjusting the brightness of an image without losing detail in the highlight and shadow areas of an image.

Greyscale – Used to describe images consisting of two or more shades of grey.

A black-and-white photograph is more correctly called a greyscale or continuous tone image. A typical photograph will have up to 256 shades of grey although when I tested some of the samples in this review, many had less than 200 greys.

Dots Per Inch (dpi) – Used to measure the resolution of an input device like a scanner or mouse, or output device such as a printer or monitor. The smaller the dot (pixel) produced by a device, the more dots it can fit into an inch space and therefore the higher its resolution.

Interpolation – A software-based method used by many scanners to double the true maximum resolution of the device.

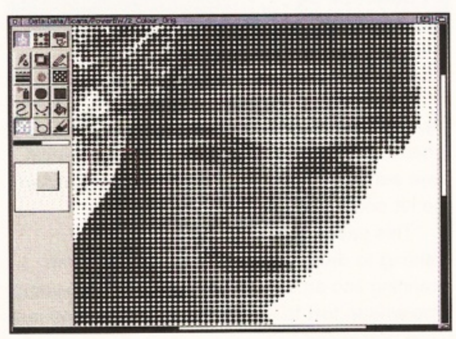
For example, many scanners have an optical resolution of 300 dpi, but by using interpolation this can be increased to 600 dpi. The software does this by calculating the appropriate colour value for pixels positioned between those actually scanned.

Optical Character Recognition (OCR) – The process of converting text that is scanned, into a form that is editable in your word processor.

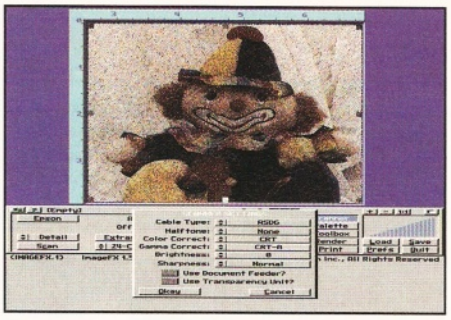
RGB – Acronym standing for Red, Green and Blue which are the colours (or percentage thereof) displayed by most monitors and also used by many scanners to capture colour images.

SCSI – Refers to Small Computer Systems Interface. A type of connection used for joining peripherals to your computer. An Amiga example is Squirrel from Hi-Soft.

TWAIN – An Interface developed by many leading companies that enables those on the PC to operate many types of scanners from a single Interface in their software.



TouchUp is a program that is still the business despite being past its sell-by-date.



From Power Computing comes ImageFX 1.5, a program suitable for driving the Epson range of flatbed scanners.

were much more interesting than a normal greyscale image devoid of all colours except shades of grey.

After many hours of playing with this new 'toy', the only Achilles heel I could find with it, was the scanner's black-and-white mode which produces images that lack detail. When scanning text, typefaces like Times break up, while others, like Helvetica, scan okay.

Powerscan Colour

Being the only one available, you don't have a lot of choice when it comes to colour scanning, so it's just as well this scanner produces excellent results. Because it's several hundred pounds cheaper than a flatbed model, it makes a good half-way house for those with somewhat limited resources.

Price: £199
Supplier: Power Computing
Contact: 01234 273 000

Verdict: 90% Star buy

Powerscan Greyscale

Anyone looking for a budget scanner should take a long hard look at this one. Priced under £100, the Powerscan Greyscale scanner is not only good value, it also comes with the unique Interface which allows you to attach a printer to your Amiga, as well as the scanner.

The Interface even has a little foot on it so it doesn't hang in mid-air. Completing the package is the Powerscan 4 Professional software and a comprehensive manual that covers both the monochrome and colour scanners produced by Power Computing.

Getting it all up and running is dead easy. It takes only a minute or so to install the hardware and software and before you know it, you're well on your way to your first scan. Like most black-and-white scanners, you get four scanning modes. Text is for scanning line art and text of course, while Photo (three modes in this) is used for scanning pictures containing colours or shades of grey. These include photographs or illustrations.

Like the Alfascan scanners, this one scans everything in black-and-white, including photographs, which are scanned using a black-and-white dither. To convert them into a form that resembles your original picture, the software comes with an image processing function which converts the black-and-white dots into shades of grey.

This it does very well, creating greyscale images that contained more shades of grey than any other black-and-white scanner.

Powerscan Greyscale

A first-class black-and-white hand-scanner that is made all the better by the excellent software which enables you to produce good-quality greyscale images, as well as black-and-white ones. OCR software is also available separately.

Price: £99
Supplier: Power Computing
Contact: 01234 273000

Verdict: 89%

Epson GT-9000

For a long while, the Rolls Royce of Amiga scanners has been the Epson GT-6500. That's about to change. By the time you read this, Epson will have made the decision to remove the parallel port from the GT-6500 and stick to a SCSI-only Interface. This won't be a problem providing publishers like Almathera, Power Computing and Nova Design, come up with drivers that will work through the SCSI connection.

It isn't, however, the only problem facing the GT-6500. Epson have also said it will only be available in bundles with PC software. If that is the case, I can't see Amiga-owners going out and buying a scanner loaded with PC software and paying more than what they could be paying for the better Epson GT-8500 or Epson GT-9000. This is because these scanners will be available with a parallel port as standard and also available without all the PC software.

In light of this, I decided to take a thorough look at the flagship model, the GT-9000. Now before you start to think that this machine is way out of everybody's financial reach, I have been told by Epson that it will be selling for as low as £550 in discount stores. That's less than the GT-6500 sells for now in many other High-Street outlets.

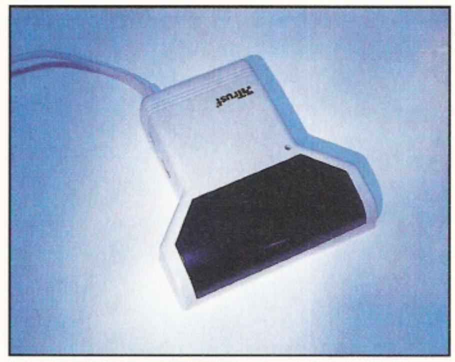
The GT-9000 is a 30-bit (10-bits for each RGB) flatbed scanner that can scan in resolutions up to 2400 dpi. It comes with both SCSI and Parallel connections and as for software, I had no problems using it with versions 1.5 and 2 of ImageFX.

The results were very good indeed, considering it's a scanner costing well under £1,000. They were certainly much better than anything I've seen from my very own Epson GT-6000 and well ahead of the quality found with colour hand-scanners.

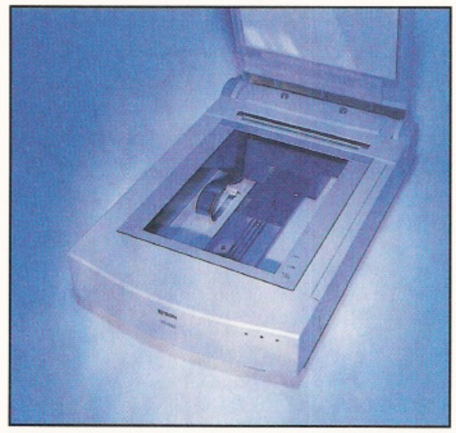
The first thing that hit me about the GT-9000 was the speed. The preview of an image was twice as quick as the GT-6500 and a detail scan was completed with a similar result.

There's more. The GT-9000 also accepts both a document feeder and transparency adaptor, although if you are intending to scan transparencies, Epson do advise that these are at least 4"x5" for ultimate quality.

Now this all sounds rather too good to be true and there is a but. A big one at that. If you



The Powerscan Greyscale is without doubt one of the best packages for Amiga-owners wanting to produce good quality greyscale images at a low, low price.



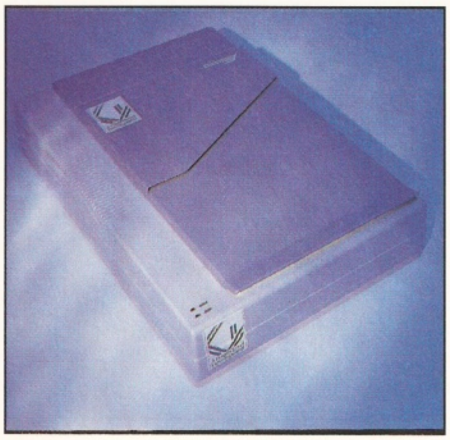
Those wanting colour input need to look no further than the superb flatbed scanner GT-9000 from Epson.

"If you intend to buy a **flatbed** scanner like the GT-8500, make sure you have the hardware to support it."

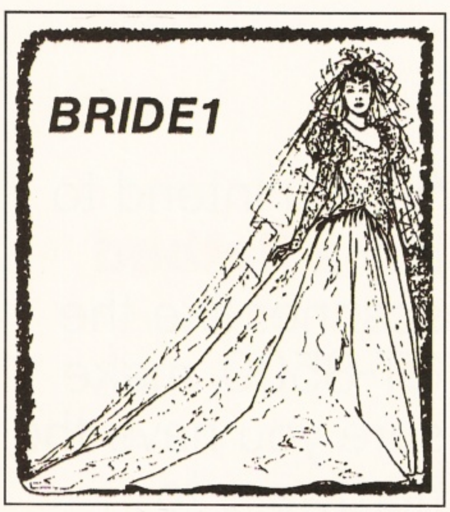
▶ 28



An example scan done by the Epson GT-9000.



The Fourth Level 4800 is a new breed of flatbed scanner priced under £600, producing excellent results while being easy to use.



Another example scan done by the excellent Epson GT-9000.

intend buying a flatbed scanner like the GT-8500, which is sure to replace the GT-6500 as the Amiga-owners choice, or the GT-9000 reviewed here, then make sure you have the hardware to support it.

Having a scanner that has a maximum resolution of 2400 dpi is one thing, having an Amiga that can handle this is quite another. With 7Mb of memory in my Amigas, scanning proves to be quite a chore and I'd advise anyone who doesn't have other options like another computer with more memory, to boost their Amiga's memory to at least 10Mb, if not 20Mb.

Epson GT-9000

This scanner is so good, I dare Epson to park one next to my Amiga! Anyone else daring to splash some money around is well advised to make sure they get a GVP or ASDG cable to attach it to a parallel port, as well as some software, like ImageFX, to drive it.

Price: RRP £659
Supplier: Epson UK
Contact: 0800 220546

Verdict: 90% **Star buy**

Fourth Level 4800

Flatbed scanners have always been a rare breed on the Amiga. The main reasons for this hinged on two facts: a lack of software to drive the scanners and the reliance on the SCSI connection by many popular brands.

As many Amiga owners will know, until Squirrel from Hi-Soft came along, the SCSI connection on the Amiga side of things was restricted to a small percentage of the Amiga population. That is, those with boxed Amigas. With such a small market, the opportunity to make any sort of profit creating and selling scanning software was severely limited when it came to SCSI scanners.

One of the catalysts for change has been the Squirrel SCSI adaptor. It's opened up the market so much, it is now viable for developers to spend time and money coming up with software for many popular scanners.

One of the first on the scene is the 4800 from well-known Amiga developers, Fourth Level Developments in Bristol. The name of the scanner by the way, comes from the maximum resolution it is capable of; i.e. 4800 dpi. The 4800 was originally conceived to work with SCSI cards like the Oktagon, but, as I found in this review, it works just as well with Squirrel, which is a necessary purchase if you intend using the 4800 (or any other SCSI scanner) with the Amiga 1200.

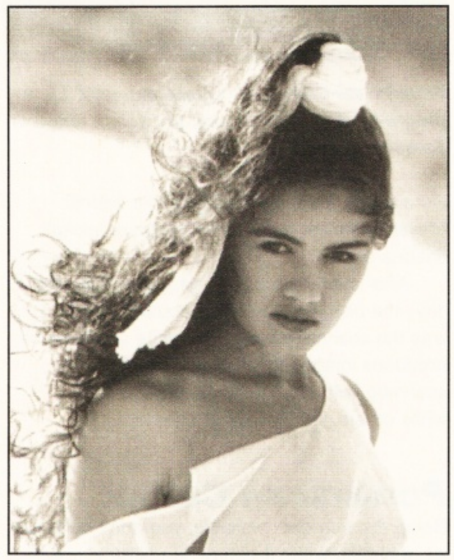
The scanner from Fourth Level is one of a new breed finding their way to these shores from the Asian Pacific region at prices we could only dream about not so long ago. The 4800, for example, is priced below £600 (with VAT) and that includes software for the Amiga, PC and Macintosh.

After taking a little time to get used to the software, which is fairly basic compared to some scanner drivers, I was soon producing scans on par with the lower resolution Epson 9000 (2400 dpi). The main difference between the two, besides the 4800 being a higher resolution scanner, is the driver software. The Fourth Level package is very basic and, at the time of the review, still under development. Compare this to the excellent ImageFX and it's no contest.

Although quite basic, the Fourth Level software does control the scanner very well, producing first-rate results and more importantly, letting you scan directly to hard disk. This is useful for those with limited RAM, because scanning in full colour with programs like ImageFX, requires sandbags of memory.

Samples for everyone

Only you can really decide on the merits of price versus quality and to help you out, all the images used to judge the scanners in this review are available from LH Publishing ☎ 01908 370230.



Here's an example of a 256-colour scan by the Epson GT-9000.

Fourth Level 4800

Although the software isn't as elaborate as that for the Epson, the 4800 is quite a bit cheaper which is why I've rated it almost as highly as the Epson. Not only is the 4800 well priced, it also produces good quality images and the software comes free. Look out for a baby-brother called the 2800 soon which will be even cheaper. ■

Price: RRP £586.32
Supplier: Fourth Level Developments
Contact: 0117 985 4455

Verdict: 88%

Final verdict

Without trying to sound elitist, there is no doubt the Epson GT-9000 is the best scanner. It isn't for everyone though and when money's tight and you need colour input, how about trying the Powerscan Colour. If all you want is a black-and-white scanner, though, and your system is fairly modest, then either the Powerscan Greyscale package, or the Alfascan Plus will do very nicely.

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Straight talk

At Escom's recent press conference, it was revealed that Scala's MM300 was to be bundled with every Amiga sold from now on. **R Shamms Mortier** *puts Scala's John Hillman in the hot-seat.*



All new Amiga converts will soon be very familiar with this brand name.

> **"**Scala is well **pleased** that Escom has bought the assets of Commodore International.**"**

Before we begin, let me say that there are very few Amiga companies that can boast as successful an operation over as long a time period as Scala Inc. They were one of the Amiga's first developers in what has now become a frantic and highly competitive field, multimedia.

Their products include such famous packages as MultiMedia (MM) and InfoChannel. I know several users of Scala products on this end – people involved in both the business and education community, who own and use their Amigas strictly because of Scala software support. This interview with Scala's director of marketing, John Hillman, took place over a period of several weeks in May.

Scala is known throughout the Amiga realm as a resounding success-story. What are the specific ingredients and mindset that have lead to that success over the years?

Why is Scala a success? Scala has always defined its business as computer television, using a desktop computer to author multimedia presentations that, when played back on another desktop computer (or now, on a whole new generation of set-top boxes), has the look and feel of a television production.

Scala has driven the strategy to its present success. At this point, Scala is introducing its new BackBone software architecture. This architecture is hardware, Operating System and even content independent. By content independent, we mean that Scala will accept the standard art files and other multimedia authoring packages.

We are doing this because it is our belief that computer graphic artists all have their favourite tools. Instead of getting computer graphic artists to convert to using our tools, we are focusing our effects where they belong, on computer television. The playback of any chosen files with Scala products now, and in the future, will be seen as a television production.

It is rumoured that when Commodore went down Scala was well prepared with a stockpile of what it needed in terms of machines and parts, enough to last for a long time. How did Scala get wind of the collapse and what was done to prepare for the chaotic interim?

It was very clear to the world at that time that something very dramatic was likely to happen to Commodore. When the news of the collapse was broken, we were prepared and acted as quickly as possible. We bought all the available Amiga 4000s in Scandinavia and Germany.

Scala recently released MM400 in Europe only, skipping this upgrade release to the US market. Is the market for Scala's Amiga multimedia-wares substantially different in Europe compared to the US?

We have many more individual users in Europe than in the US, where we have concentrated on the marketing of our InfoChannel product.

Scala is also involved as a major multimedia creative development team for high-end international firms. Can you comment on this?

Scala's business strategy is to pursue the development of new media networks. These networks require computer and display hardware manufacturers for platform design, telecommunication firms for network support and content firms for application development.

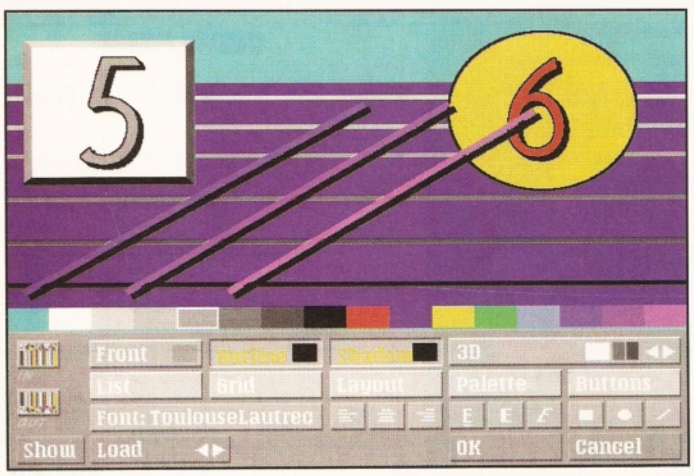
Scala has pursued corporate alliances with companies that provide these products and services. To date, Scala has formed alliances with Thorn EMI for television monitor networks, General Instrument for the next generation of set-top boxes, Ameritech for telecommunication networks, and NBC On-Site for content.

When Commodore went down, Scala was there to pick up the best people. Who are they and how has everything worked out in terms of their integration?

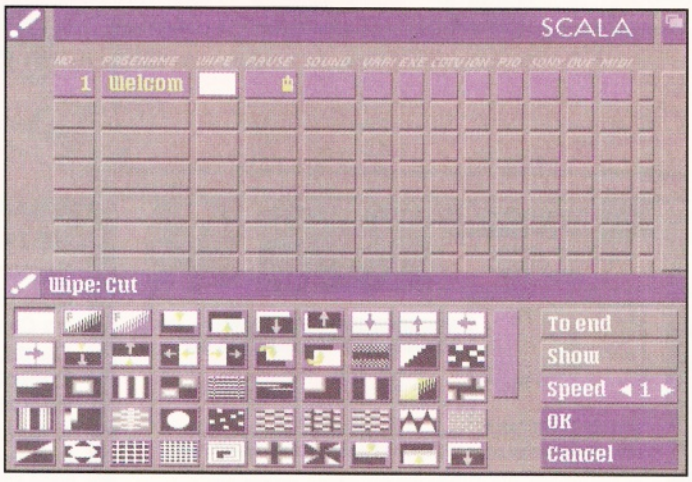
Jeff Porter, often called the "Father of the Amiga", is now Scala's vice-president of engineering. Other Commodore legends now working for Scala's R&D group include: Dave Haynie, Michael Sinz and Randall Jesup.

Other strong ex-Commodore names within our engineering team are: Peter Cherna, Darren Greenwald, Scott Drysdale, Jerry Horanoff, Ken Farinsky, John Orr, John Schilling, Jim Barkley and Wayne Lutz. We have engineering teams in the United States and in Norway, as well as two developers in the Netherlands. They all work very closely together.

How familiar are you with Escom? Is the coming Euro-centricity of the new Amiga



Scala combines the power needed for multimedia presentations with user-friendly interfaces.



Since people are never satisfied with a few options, Scala attempts to supply every type of effect you can ever imagine needing.

organisation projected to be a problem for Scala? [This interview was conducted before Escom's press conference in Frankfurt – Ed.]
Scala started in Europe and we continue to have a strong European base with an extremely experienced and competent engineering team. Escom's European base represents no problem at all to us.

Considering the present state of the market, is it worth bringing the Amiga back on line? What do you think a revived Amiga will look like?
The ever increasing price of Amiga hardware is a good indicator of the continued interest and potential market for Amiga technology. This demand is particularly strong in regard to cable head-end applications.

To succeed in this marketplace, the new Amiga will have to adapt more than ever. By adapt I mean conform to the existing industry standards, such as keyboard, mouse and floppy drives, as well as to accept and manipulate standard industry artwork and files. This can all be done through Scala.

Are there any untapped places where the Amiga market might still thrive and grow?
The video tricks that one is still able to perform on an Amiga are still, and will continue to be, unique in many ways. The Amiga will continue to thrive where these video tricks are most appreciated, especially in regard to professional multimedia applications such as kiosk networks (using Scala multimedia tools, of course), private television networks (using Scala's InfoChannel), or head-end cable applications (using Scala's InfoChannel and Speciality FX).

We hear a lot about LINUX as a possible operating system for a new Amiga. Comments?
(Pregnant pause) No comment.

Is Scala interested in working with Escom as a developer of new wears, or as a consultant?
We hope to work very closely together with Escom in the future. It is at this point, however, too early to say exactly what form that co-operation will take.

Can you elaborate?
We are well pleased that Escom has bought the assets of Commodore International.

What do you think of the possibility of an Amiga on a card for a Power PC?
The Amiga on a card idea has been discussed for quite some time and there are obvious benefits in bringing Amiga video capabilities to the PC. If Escom chose to invest in developing this technology, Scala would definitely support it.

What is Scala's position as far as advancing its Amiga software line? Would there have to be a discernible growth in the Amiga market to make that worthwhile?
At the moment we are concentrating on developing and bringing to the market the first products based on our new Scala BackBone software architecture.

These products are for Intel-based PCs. Given a revival of the Amiga marketplace, we will bring this architecture to the Amiga.

In Scala's opinion, what would be the situation that would be the best of all worlds as far as the Amiga is concerned?
For Scala, the best situation would be that the Amiga platform returned and is positioned very effectively as a speciality video computer. Given this, Scala can continue to grow in its existing markets as well as to explore other platforms.

What products is Scala planning to take to the marketplace in the near future?
Scala intends to ship its first Intel-based wares in the third quarter of 1995. This product will be the English version of MM100.

Non-English versions of MM100 will ship shortly thereafter. Scala will ship the English version of InfoChannel for Intel-based architecture before the end of the year. ■

Scala Incorporated can be contacted on ☎ 001 703 713 0900, or Fax 001 703 713 1960.

Stop press!

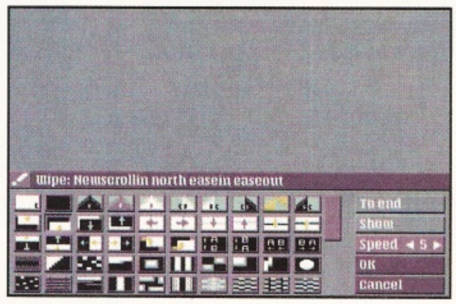
ESCOM

The Escom press conference announcing their plans for the Amiga hadn't taken place at the time that R. Shamms Mortier wrote this interview. At the conference, Escom announced that Scala MM300 will be bundled with every Amiga that they sell from now on.

Amiga Shopper asked Scala's Information Manager, Dag I. Danielsen how else they saw Scala and Escom working together in the future, and what other products they had lined up for the Amiga.

He replied, "Scala will continue to provide software products for the Amiga platform and we look forward to working closely together with Amiga Technologies on new projects. So far we have only had overall discussions and no details have been decided, so we would like to come back with more information."

You can rest assured that we will bring you more news as soon as we receive it. See page 14 for our Special News Report.



The Interface doesn't look incredibly exciting, but consider the results!



Scala MM has been through many incarnations. See page 36 for Gary Whiteley's review of the latest version – MM400.


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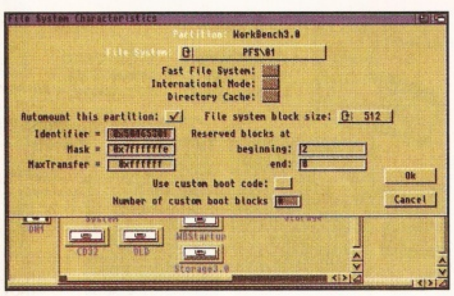
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Turbotech Clock Cartridge

Your Amiga will always know what day it is with this handy device – even after it's been switched off! Once installed, your Amiga will boot up with the correct time and date already set. Simply fits into the disk drive port (or on the back of your second drive). Complete with software.



Description	Turbotech Clock Cartridge
RRP	£19.99
AS price	£17.99
Order code	AMFCLO



Ami FileSafe

The new "de facto" standard filing system for the Amiga. Not only does Ami FileSafe achieve greater speed and efficiency than FFS, it also brings the added security of a filing system that can survive system failures, Guru meditations and crashes without causing disk block errors.

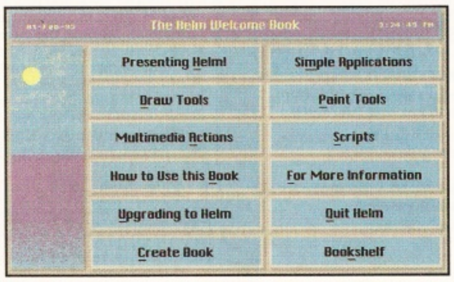
Description	Ami FileSafe
AS price	£69.75
Order code	ASAFS

Mouse 'n' Mat



At last! A quality replacement-mouse at a bargain price, complete with mouse mat. The 260dpi resolution mouse is 100% Amiga- (and Atari ST-) compatible and both buttons are fully micro-switched for maximum reliability and performance.

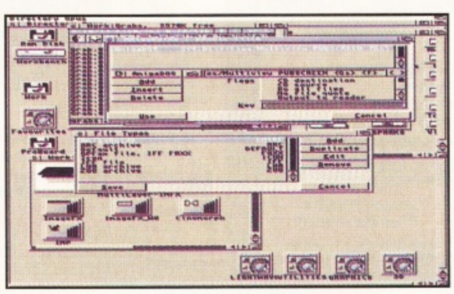
Description	Mouse 'n' Mat
AS price	£12.99
Order code	AFMM



Helm

A true multimedia authoring system for the Amiga, Helm earned 91 per cent when reviewed by our Consultant Editor Nick Veitch in Amiga Format. Create custom image editors, personal information managers, presentations, kiosks, free form databases, or educational courseware. Helm is both an authoring system and a graphics program, combining draw, paint and image processing tools with a scripting language, a hypermedia database manager and an assortment of user Interface objects.

Description	Helm
AS price	£99.95
Order code	AMF503



Directory Opus 5

This latest incarnation of the superbly powerful and well-designed file manager received 92 per cent and an Amiga Shopper Star buy award in issue 51 (see page 104 for back issues if you missed that one). Directory Opus 4 was brilliant and version 5 is no exception. Now this excellent program can be yours for £10 less than the RRP of £59.99.

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MIDI Interface

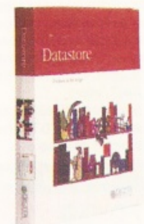
Test your Amiga's musical talents with the fully-featured ProMIDI Interface. You can connect synthesisers and drum machines to your Amiga and use the samples with Amiga Format's Music-X and OctaMED Coverdisks.



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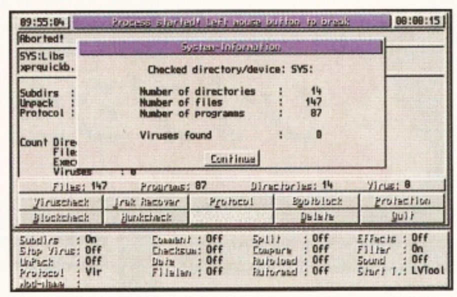
Description	Midi Interface
RRP	£24.95
AS price	£19.95
Order code	ASMIDI

Datastore



Datastore is an accessible and powerful database. The number of records is limited only by the amount of RAM you have available (at least 1Mb with WB2 or 3). Easystart templates that accompany the package include Club Membership, Recipes, Address Book and an Amiga Format magazine guide. The Amiga Shopper magazine guide, on the March AS47 Coverdisk, has been designed to be used with this ground-breaking release.

Description	Datastore
AS price	£49.99
Order code	AFDAST



Antivirus

Siegfried Antivirus Professional – to use its full name – is an essential buy for those who suffer from virus attacks. It can be used with all types of Amigas with an 1.3, or advanced Kickstart version and 1Mb RAM. Save £5 off the RRP of £39.99 by buying from AS!

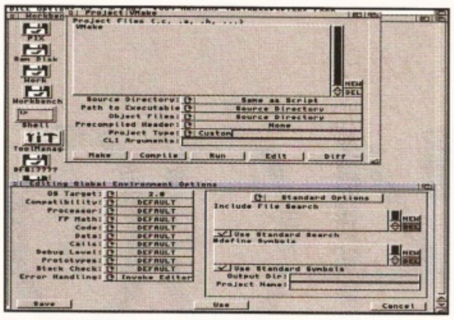
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Vista Pro Lite

This truly amazing fractal landscape program from Meridian enables you to build your very own scenery on your trusty Amiga. After you've created the absolutely perfect landscape, you can animate it to create stunning fly-bys, or simply use it as backgrounds in your own games, pictures or 3D renders. *And* it even works on standard A1200s. Definitely one not to miss!

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Photogenics

There can't be a single Amiga owner who isn't aware of this powerful package and the incredible impact that it has had on the Amiga-scene. The most talked-about image manipulation package ever also brings you the creative freedom of a traditional paint program. Check out Graeme Sandiford's Photogenics tutorial on page 68 and find out what this great program can do. And you could, of course, get hold of Amiga Format issue 69 and try out the demo on the Coverdisk before buying.

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Scala MM400

The latest incarnation of what is probably the world's best multimedia presentation and information display program is upon us. **Gary Whiteley** *plugs in and checks it out.*

Unless you've been taking part in isolation tank experiments, you haven't got an Amiga, or you've never read any Amiga magazines, then you have almost certainly heard of Scala MM, the multi-purpose, multimedia, multi-talented software which originates from that land of snow, ice and fjords – Norway.

Back in 1987, when John Bohmer founded Scala Inc., there was little in the way of true multimedia software on *any* computer, never mind the Amiga. The invention of the Amiga must have been a dream come true for this would-be multimedia mogul, because with its custom graphics chips, flexible Operating System and built-in video and sound capabilities it offered the perfect platform for developing what was to become, over the space of a few short years, one of the powerhouses of presentation, information and interactive display software.

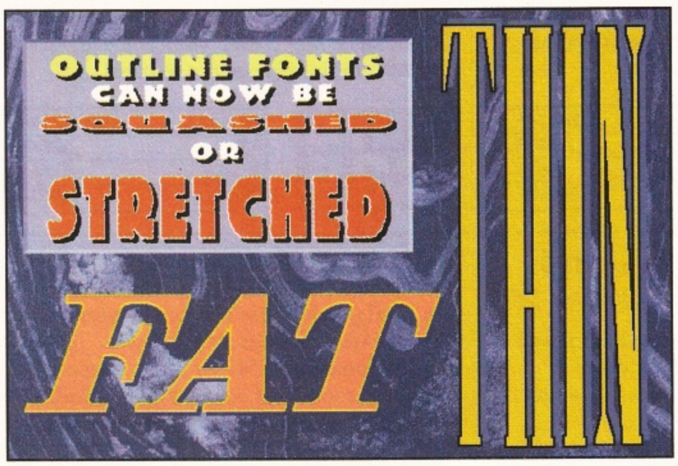
Now, with a range of products behind it suited to many tastes and pockets, Scala has released Scala MM400, the successor to MM300, MM200 and the original Scala software. As with all their upgrade releases, MM400 has enabled Scala to add more features to both improve and extend the power of Scala.

What is Scala MM?

In a nutshell, Scala MM is a versatile multimedia presentation and information display program which has the ability to produce pages of mixed text and graphics, each of which can be provided with a variety of transitions, links to animation playback, synchronised sound (internal and MIDI), accurate timing, manual or automatic control, and many other features.

By using custom control modules (EXes), a range of external devices including laser discs and video decks, certain genlocks (including G2, GVP G-Lock and Neptun models), CDTV and CD32 players and (as of MM400) MacroSystem's VLab and Electronic Design's FrameMachine framegrabbers can be controlled directly from Scala MM.

Scala MM is used by many international companies to provide interactive, training and business presentations, educational quizzes, point-of-sale booths, cable TV displays, information displays, video titling and much more. Major users include IBM (!), SAS, Escom and German railways, as well as hospitals, hotels and airports.



MM400 has ScalaType, a new font engine for even faster access to CG and Outline fonts with some great new features.

What's new?

Without a shadow of doubt the best addition to MM400 is the new ScalaType font engine which dramatically decreases Outline font (also known as CG, or Compugraphic font) access and rendering times. Prior to ScalaType, calling up and displaying an outline font could take a moment or two – now it's almost instant! Meaning that if you want to preview a font, or change your text on the fly, you no longer have to wait those precious seconds while your Amiga grinds away and Scala constructs the text. Just change the font and it's done.

A further benefit is that MM400 takes much less time to start up than it previously used to take MM300 to get going and initialise its font list, so you can be up and working faster after a reboot or startup if time is a critical factor to you.

Another attraction of ScalaType is that CGFont text can now be stretched or squashed, either directly with the mouse, or numerically via the Layout Editor, so you're no longer restricted to text with a fixed aspect ratio. If you want tall, thin text, you can now have it. Dragging text out with the mouse is quick, easy and makes for much improved layout speed.

To complement ScalaType, a fifth level of antialiasing has been added especially for smoothing the edges of outline fonts. At the same time, the way that the antialiasing colour is set has changed (it used to be done from Scala's Palette Editor and affected all the text on the page) to use the Background Colour button, which means that any text can be antialiased to a different colour if so desired. These changes have certainly improved Scala's antialiasing capabilities by producing noticeably smoother text, but at the cost of a slow-down during presentation playback.

While we're on the subject of text, one thing I've often wished Scala had was kerning control, so that letters such as T and e and W and A could sit next to each other more snugly, instead of just looking awkward. My wish has been granted, but I soon discovered that not all CG or Outline fonts are created equal, so many of the PD ones I tried wouldn't actually kern.

On the other hand, all my commercial Compugraphic fonts worked fine, though I couldn't tell you why there's such a difference in performance. But don't get too ecstatic – kerning only works with CGFonts, not ordinary Amiga bitmap fonts, and it doesn't always seem to work consistently, even on those fonts which *are* kernable.

Requirements

Scala MM400 requires at least 3Mb RAM (including 1Mb chip RAM) and a hard drive. 2Mb chip RAM, a Fast Amiga (68030, or better) and more Fast RAM are recommended, as is AmigaDOS 3 or later. More screen colours will be available on AGA Amigas than on ECS or other models.

Another valuable addition is a new set of EX modules which provide for the import (and sometimes export) of several different graphics formats, including GIF, TIFF, BMP, PCX and FLC files, as well as any graphics supported by WB3 Datatypes. MacroSystem's YUVN framegrabber format, RGB8, IFF DEEP and several other image formats are also accessible through the new Multi EX.

A small number of new transitions (curved fly-ons) have been added to give more spice to moving text and brushes on and off screen, but there are no other apparent improvements as far as transitions go.

Shuffle your choice

To make choosing background images, brushes and animations easier, the standard file requester can now be toggled to a File Shuffler, similar to the Shuffler available for editing the order of events. When the File Shuffler is turned on, thumbnail versions of each image in a directory are displayed, making choices easier if you aren't good at remembering what you called your required images. The File Shuffler works in either black-and-white, or colour and the thumbnails can be saved to speed up access the next time you search that directory. So now all you need to do to choose an image is to simply double-click on its thumbnail.

More EXes have been added to control more external hardware, including VLab and FrameMachine framegrabbers (so that you can grab backgrounds direct from video!), the Neptun genlock, MPEG video (requires additional hardware) and CD32 audio.

Finally, it is now possible to save rectangular sections of a Scala page as a brush, complete with all text and other associated graphics. These can be loaded into a paint program, or back into Scala. And if for any reason you need to save any Scala text to disc or for print-out, there's now an option to save it as an ASCII file.

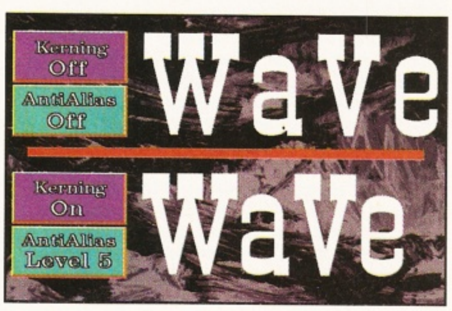
Any problems?

Apart from the kerning peculiarities, I also experienced some problems when running MM400 on a WB2.1 Amiga 2000. The most infuriating trouble was that I couldn't use any of the new image EXes successfully. Try as I might, GIFs, TIFFs and other images were rejected by MM400 with error messages reporting variously that there wasn't enough chip or Fast RAM – both patently absurd as the 2000 had almost 2Mb of chip RAM and 7Mb of Fast RAM free during testing.

The only GIF images which would load were two-colour ones. Mostly though, Scala tried unsuccessfully to load the images, showed a couple of yellow (recoverable) Guru message and then closed itself down, keeping the memory and forcing a reboot before I could start Scala up again.

Further problems appeared when I tried loading IFF24 and IFF256 images into MM400. Once more, I was informed that the 2000 was out of memory – when it obviously wasn't! Just to check, I ran Scala MM300 and the images which I was trying to load into MM400 loaded and converted perfectly with MM300. So I guess something got broken between MM300 and MM400.

One more niggle – when antialiasing is on, any underlined text affected loses its underline. Surely this must be an unsquashed bug? Although I reported these problems to Scala Tech Support, they weren't able to provide a cause or solution before I had to file this review, so no conclusions yet, I'm afraid.



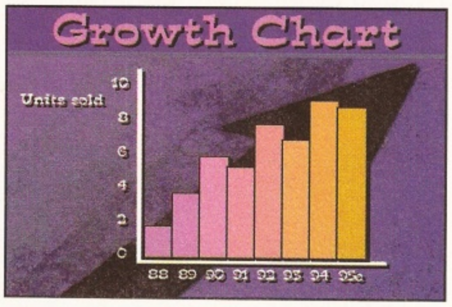
With the new kerning feature and another antialiasing level, MM400 can provide impressive displays.

The times they are a changing

Once there was nothing to touch the Amiga as a cost-effective multimedia and video platform, but whilst Commodore sat back on its laurels and made goof after goof the massed ranks of the PC and its clones crept ever nearer the castle walls. Now, with the latest liquidation troubles still in everyone's minds Scala have bitten the bullet and are very close to releasing their multimedia software for (shock, horror) the PC!

This is good news for PC owners, who desperately need an affordable (and usable) program like MM400 on their platform, instead of the pitiful efforts I've seen over the years. Let's hope that they remember where it started out, and that without computers like the Amiga to kick the PC market in the pants PC owners might still be running dull little DOS boxes which would never have stood a hope in hell of even multitasking, never mind running multimedia programs like Scala.

Of course a PC version of Scala must be good news for the Amiga too, since the PC market is so huge that Scala Inc must surely make enough money to be able to keep developing for the Amiga side, at least until (or if) the Amiga ever looks like becoming completely extinct. Time will tell, but until then let's hope Scala does as well on the PC as it has on the Amiga!



Animated charts are just one of the many uses to which MM400 can be put. All you need is some imagination...



Can't remember what your picture was called? No problem, use the new File Shuffler menu to choose your image from a set of miniatures.

Scala MM400 features

- **100 page transitions**
- **80 text transitions**
- **CG and Amiga font support**
- **5 antialiasing levels**
- **Kerning and font scaling**
- **Full overscan and AGA support**
- **Loads IFF, GIF, TIFF and other image formats**
- **Animation, sound and MIDI control**
- **Brush load, save and scaling**
- **Absolute or relative timing**
- **External hardware control via EXes**
- **AnimLab animation utility**
- **ARexx support**
- **Range of backgrounds, fonts and symbols supplied**

The bottom line

Even with its little quirks, MM400 is another positive step forward for Scala's meisterwork. The new type features (faster fonts, kerning and antialiasing) and EXes, as well as the other improvements, are all welcome additions.

However, it seems to me that a little more time could have been spent testing MM400 on non-WB3 Amigas, particularly since A4000s are hellishly hard to get and many folks are still more than happy to continue with their souped-up 2000s and 3000s anyway. I still wish they'd added cut-and-paste for text and graphics and an Undo button, though! Maybe in MM500?

Also, don't forget to check out the interview with Scala Inc. on page 30. Gary Whiteley can be E-mailed at drgaz@cix.compulink.co.uk. ■

Scala MM400

MM400 doesn't seem quite as stable as previous releases (which may reflect the pressure on Scala to produce a PC version), but the new features make it a worthwhile upgrade for current Scala MM owners and a bargain for professional multimedia presenters who still have faith in the Amiga's future.

Price:	£299.00
Upgrade:	from MM300 £49
	from MM200 £99
Supplier:	Scala UK Ltd
Contact:	01920 444924

Verdict: 89%

The silicon chameleon

When is an Amiga not an Amiga? When it's a PC, a Mac, a C64, an Atari ST, a Spectrum... or a different Amiga even. **David Taylor** *looks at the "changing face" of the Amiga.*

Other computers may have trouble emulating the Amiga because of its custom chips, but our computer can shed its skin and become something else at the drop of a diskette. In recent times the Amiga has seen a huge increase in the number of emulators available for it. Some of the programs are now commercial releases, others could be yours for the cost of a disk and one may even be present on your Amiga already. Interested?

PC-Task 3.10

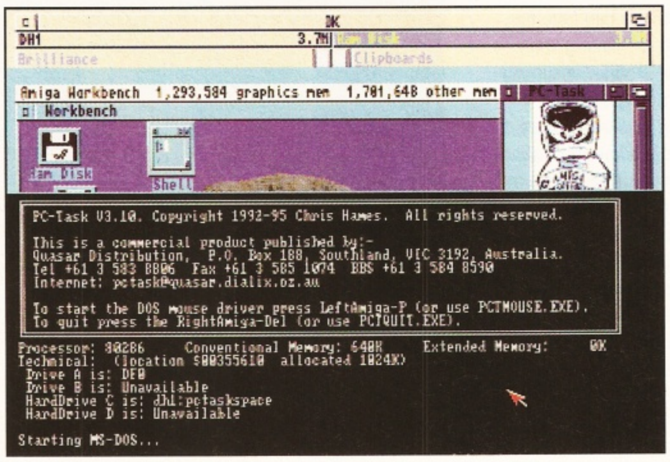
It's a sad fact of life that PCs *do* exist and, worse yet, that most of us have to come into contact with them every so often. It's all very well to have your Amiga at home, but you may find yourself wanting to make use of a PC program you are used to at work, or perhaps finish off something you'd been doing at work.

Whatever the reason, it's an interesting idea to run PC software on an Amiga. PC-Task is designed to do exactly this.

Installation is a breeze using the standard installer. The program can be run from both floppy and hard drive and so can be installed to either. There are different versions of the program optimised for use with different processors and even a turbo version of each for those with more RAM.

The minimum requirements for PC-Task are remarkably small. You could run it on a 1.2 machine even. For better results, 2.1 and above is recommended. Obviously, the better the machine, the better the performance of PC-Task.

> "With everything set up, it's just a case of getting used to the PC's OS and **loading** your programs."



PC-Task 3 running happily on an un-accelerated A1200 with Workbench and Directory Opus multi-tasking easily in the background. Do that on a '286, if you can!

Although I did use it on an A1500 from floppy, I found it more comfortable on an A1200 with a hard drive. It is the hard drive that makes the main difference. When you start PC-Task as a floppy-based program, you need to insert a system-disk created on a real PC.

To do this, you must format a disk on a PC, using a command like "format A: /s /f:720". Here is where you remember that PC-Task emulates the PC's hardware; it doesn't have the software OS, MS-DOS. So, you need a separate version of MS-DOS for use with PC-Task. As you can imagine, running an emulator with an OS on floppy is not ideal.

The solution is to create a hard disk file on a hard drive. This is a pseudo hard drive partition that PC-Task can use. The program creates a file of the appropriate size on your hard drive and you simply need to specify that the program should use this file as a hard drive partition in your preferences. It is also possible to support real PC partitions, but creating a new PC partition would be a difficult job, especially if you already have the drive partitioned.

That option also seems a little extreme as I found no problems with using the pseudo-drive. You can have two drives, C: and D: and if you format the C: 'drive' as a system-disk, PC-Task will now boot using this and start DOS. (Note that you will still need MS-DOS.)

This version of PC-Task can run software that requires a 286 processor or lower, which means Windows on the Amiga is possible, but, considering how slow it is on a real PC, probably isn't advisable.

The restrictions of PC-Task are inevitable. This is a software emulator and you can't expect to be rivalling a '486 with an old A500. This isn't to say that PCs are better than Amigas; I'd like to see an old 286 PC emulating an Amiga (oh, the Pentium PCs can't even do that) whilst it's multi-tasking and doing something else in the background. This is one of the strengths of PC-Task; it still multi-tasks, which means you can switch back to the Amiga as with any other application.

With everything set up, it's just a case of getting used to the PC's OS and loading your programs. If you are making use of PC

The hard way

All the products mentioned here are software emulators. As such, you can't expect to get programs running very fast and may even find some programs refuse to run. While the results should be acceptable to the non-professional, don't expect to be running Quark from a software emulator.

Professionals may wish to explore the other avenue of hardware emulators, such as the Golden Gate '486 board (reviewed in AS21) or the Emplant board (reviewed in AS28). These boards plug into box-Amigas and attain far better results because they actually contain the hardware for those computers. The Emplant board can even be fitted with Mac ROMs.

shareware, I had no trouble using PkZip and unzipping PC archives within PC-Task.

In addition to the program, there are a couple of PC utilities supplied. These are designed to make the integration of the PC into the Amiga easier. They allow you to do things like copy programs stored in the PC hard disk file to an Amiga device, or to view the contents of an Amiga directory within the PC environment.

PC-Task is remarkably easy to start and use. Most of the problems come from trying to get around in such a lame OS as MS-DOS and you can't blame the program for that. Of course, it's a shame that only '286 and lower programs will work, but nobody can work miracles even on an Amiga. PC-Task does exactly what it says it does and although I'm sure you may find the odd program that it doesn't like, I didn't come across one.

As far as PC-Task 2 users are concerned, the new version will make use of any hard drive files you already use. Although it is a lot more commercially presented than earlier versions, it offers little to entice you to upgrade. There is now support for the SVGA mode and there are more versions of the program so that you can use one that matches your configuration. I would say that only those people who make extensive use of PC-Task will want to consider upgrading, but people who run that amount of PC software will probably already have a PC anyway.

I wouldn't hesitate to recommend PC-Task 3 to those who were unsure about buying an earlier version, because it is a remarkable piece of software and should amaze those friends of yours who are wetting themselves about finally getting multi-tasking on their PC.

Incidentally, the version I reviewed here is 3.10, which has several bug fixes from 3.0. If you have 3.0, a patch is available and can be found on Aminet in misc/emu or from PD houses.

PC-Task 3.10

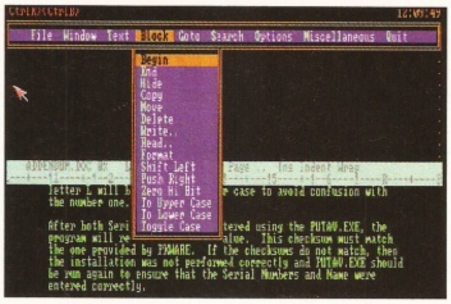
Price: £59.95
Supplier: Emerald Creative Tech
Contact: 0181 715 8866
Verdict: 90% Star buy

ShapeShifter 2

This is a Mac II emulator that is actually shareware. The unregistered version only allows floppy disks to be used. In theory, this program works very much like PC-Task, in that you can use filedisks on an Amiga partition as a pseudo-Mac hard drive and that you will require the Mac system-disks to boot the emulator.

The big difference is that this program requires you to read the ROMs of a real Mac to get it to work. The ROM image can then be put on to the Amiga and everything should work fine (N.B. from then on the real Mac and the emulated Mac must not be run at the same time).

Unfortunately, things are never that simple. Not all Mac ROMs will do (they must be version 124 512K, or 1Mb ROMs) and despite trying several Macs, none of the ROMs translated correctly. Although this problem seems to arise from the Mac side of things, it does make it



Running DOS-based applications is more comfortable than Windows... and faster.

rather hard to say how it performs! However, I've heard from people who use the program and think it's the best thing they've ever seen.

This is where the advantage of shareware really comes into its own. If you've got a Mac and you want to emulate it, then you can get the unregistered version from a PD house and see if it will do what you want, before you have to buy the full version. N.B. Requires an '020 or above.

ShapeShifter 2

Price: $40/DM50 (approx. £25)
Supplier: Christian Bauer
Contact: cbauer@mzdmza.zdv.uni-mainz.de
Verdict: n/a

The Whole Spectrum

Aside from the two main rival platforms, there are also emulators for all sorts of computers. These emulators can be found in the Public Domain and some require ROM images, like ShapeShifter, whilst others work independently.

Amongst the emulators tested were ones of Vic 20s, C64s, QLs, GameBoys, BBCs and Spectrums. It is amazing how easy it is to get these programs running and I soon found myself trying to reconstruct from memory the listing for a Battleship game I once wrote for the Spectrum, until I started to wonder why.

As a piece of nostalgia, these programs are fine and it was interesting to see how things have progressed from the days of Spectrum BASIC. Their practical use is limited to playing you favourite old game that you haven't seen for years. Still, since you can obtain them from PD libraries, it isn't going to break the bank having a bit of a trip down computer memory-lane.

And now for something completely different...

This is quite an amusing aspect of the Amiga emulation scene, where you can make your Amiga pretend to be a different type of Amiga.

When Workbench 2 came along, programmers were forced to clean up their act and write programs that were system "legal". This meant, however, that new users often found that older programs wouldn't run on the new system. To rectify this, several programs emerged, like The Boot Utility or Degrader, that would downgrade the system to allow older programs to run. Any PD library should be able to supply you with some of these sorts of program.

The growth in the CD-market has seen folks with AGA-machines wanting CD32 emulation. Two commercial releases that do this are:

CDBoot

CDBoot uses the standard installer and can be run from floppy or hard drive. In terms of ease-of-use, this program is unrivalled. It really is just a case of click-and-go. Once it is installed, you

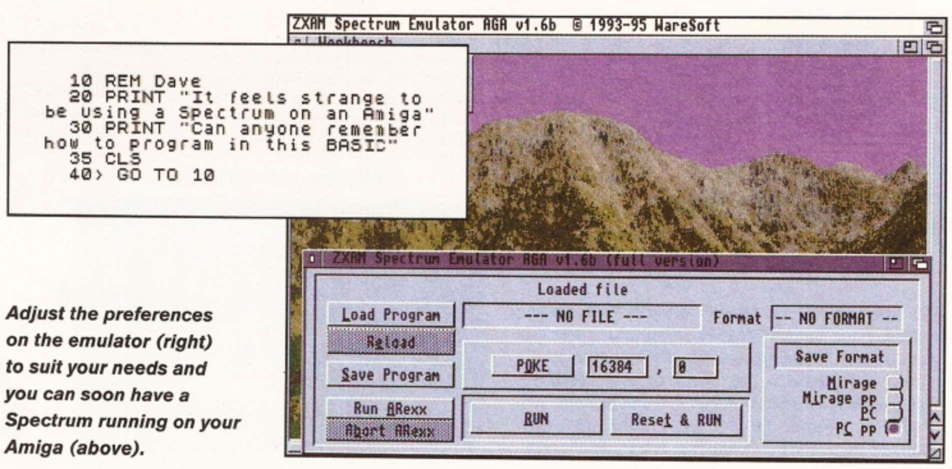
▶ 41

Legal issues

If you do start using emulators, you must be aware of legal issues that arise from the use of them.

In the case of emulators that take snapshots of the ROMs, it is not legal to then use both machines at the same time. If you have, say, a Mac at the office and want to do some work at home on your Amiga, you should check out the licensing agreement, especially if you don't own the hardware you use at work (i.e. if you don't work for yourself).

The same holds true for the software you run on the emulator. You should check out the individual licence for each program. Some programs have an agreement which allows the use of one piece of software both at work and at home on the assumption that they won't be used at the same time. Again, if you don't own the software, you must also get permission from the licensees (i.e. your employers).



Adjust the preferences on the emulator (right) to suit your needs and you can soon have a Spectrum running on your Amiga (above).



Double Dealing from HiSoft!

Exclusive Hot News

Following a lengthy investigation, we have discovered irrefutable evidence that Amiga publisher HiSoft is engaged in double-dealing. Although the company is known for top-selling titles such as Devpac 3, Megalosound and Squirrel SCSI, it now seems that HiSoft is prepared to offer a number of these professional packages bundled together at prices that can only be described as suspicious.

Our reporter gained an exclusive interview with David Link, of HiSoft, who made this outrageous claim: *"We have been supporting the Amiga community for 10 years now with a range of software and hardware packages. As a thankyou to all the loyal supporters of this amazing computer, we decided to make some very special 'birthday' offers to readers of this magazine."*. Double-talk? We'll leave you, the reader, to judge …

Termite

88% Amiga Computing
95% AUI 88% CU Amiga

DoubleDeal
£39.95 + P&P
inc CIX joining fee worth £25!

Afraid of becoming a hedgehog on the Information Super Highway? Don't worry! Termite is so easy to use that even a first time telecommunicator will feel at home. Yet it has all of the power and flexibility to satisfy the most seasoned modem warrior!

Termite is designed to take full advantage of all of the newest features of Workbench 2™ and beyond. It is 100% Amiga Style Guide compliant and provides you with all of the modern user interface features to really enjoy playing in the highway!



the Termite Button Bar

Aura

12/16 bit PCMCIA Sound Sampler
96% Amiga Shopper
90% AUI

The latest of our highly acclaimed sound samplers for the A600/A1200, Aura offers high performance 12/16 bit quality with direct-to-disk sampling plus a host of software features. Octamed 5.04 up compatible.

Aura is perfect as a stand -alone effects unit or as a complete sampling package.



DoubleDeal
£89.95 + P&P
Aura & ProMidi
Save £34.95!

ProMIDI Interface

The ideal MIDI interface for all Amigas, this smart-looking device comes with MIDI in, MIDI thru and two MIDI out ports and is complete with manual, software and a flying cable for convenient positioning.

GameSmith

Devpac 3 Amiga

Professional game development is made easy with the new GameSmith Development System. Over 3 years in the making, GDS gives you the low level power to create the masterpiece of your dreams in a single, comprehensive, easy to use system.

The professional's choice for Amiga assembly language development, Devpac 3 is a complete package of 68000-68040 assembler, debugger, editor and linker. Ideal for beginner and expert alike, Devpac 3 is the perfect companion for Gamesmith.

GameSmith fully supports and is compatible with all Amigas including AGA. A C Compiler or 680x0 Assembler is required. From shoot-'em-ups to graphic adventures, from intergalactic conquest to strategic simulation, the GameSmith Development System is the perfect solution.

90% AUI 92% CU Amiga

DoubleDeal
£129.95 + P&P
Devpac 3.14 & Gamesmith. Save £50!

Twist 2

The Amiga Database

DoubleDeal
£94.95 + P&P
Twist 2 & MaxonMagic
Save £34.95!

Twist 2 is the new, friendly, relational database for all Amigas. Twist's range of power features such as its integrated forms designer, its varied & multi-level querying, its N:1 1:N & N:M relations coupled with its un-cluttered, well-designed user interface make it ideal for both the first-time and the seasoned database user.

Maxon Magic



This is the utility that you simply must own! Maxon Magic is a funtastic combination of 20 different animated screen savers, a system event sound manager and many amusing sampled sounds that will not only be incredibly useful but will give you and your friends endless enjoyment as well.

Squirrel Storage Systems



Amiga Format 93% CU Amiga 94% Amiga Shopper 95%

As you can see, the Amiga press has gone nuts over our new Squirrel SCSI interface for the A600/A1200. In case you've missed these reviews, the Squirrel SCSI is a plug-and-play add-on that allows you to connect up to 7 SCSI peripherals to your Amiga. Just think of it, CD-ROM, Hard drive, Scanner, DAT, Optical, SyQuest, Tape Streamer - all on line at the same time! No wonder we named it after that famous storage-hungry animal! To go with Squirrel, we have some great value devices...

Squirrel SCSI Devices

730Mb SCSI Hard Drive — **£259 +P&P**
Fast (11ms access) Quantum drive - internal

Aiwa 2-speed CD-ROM — **£189 +P&P**
Super-smart with audio controls - exteranl only

SquirrelQuad CD-ROM — **£199 +P&P**
Super-fast quad-speed, packed with features - internal

DoubleDeal
Buy a Squirrel SCSI interface with any CD or HD drive for only £50! Buy 2 drives, save £25!

Add £60 for external versions (case with integral psu and all SCSI connections) where appropriate. Squirrel SCSI interface costs £69.95 by itself.

All prices include UK VAT

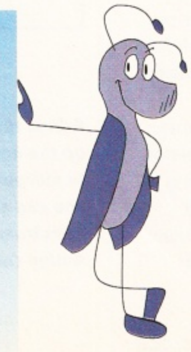
Order Hotline

0500 223660

To order any of the special DoubleDeals shown on this page (or any other HiSoft product, see the list opposite) - just call us, free of charge, on **0500 223660**, armed with your credit or debit card; we will normally despatch within 4 working days (£4 P&P) or, for only £6, by guaranteed next day delivery (for goods in stock). Alternatively, you can send us a cheque or postal orders. All prices include VAT. Export orders: call or fax to confirm pricing and postage costs.

HiSoft SYSTEMS

The Old School, Greenfield
Bedford MK45 5DE UK
Tel: +44 (0) 1525 718181
Fax: +44 (0) 1525 713716



HiSoft products for your Amiga:

Here is a list of HiSoft titles for the Amiga computers (prices shown are the individual RRPs): Squirrel SCSI interface - £69.95, Squirrel Storage Systems - please call, Aura 12/16 bit sampler - £99.95, Megalosound 8 bit sampler - £34.95, ProMidi interface - £24.95, HiSoft Devpac 3.14 - £79.95, HiSoft BASIC 2 - £79.95, HighSpeed Pascal - £99.95, Gamesmith - £99.95, Termite - £39.95, Twist 2 database - £99.95, Maxon Magic - £29.95, Upper Disk Tools - £14.95, VistaLite inc MakePath/TerraForm - £39.95 and much more. **Coming soon: DiskMagic** (disk tools) **and Cinema4D.**

DOSing around

The Amiga is original in that by adding only a few files to the L: directory and the DOSDrivers drawer, it can read different disk formats. Nowadays the Amiga can read double-density PC-disks as standard on Workbench, but these software drivers can be upgraded easily. Adding this support to Workbench is easy and needn't cost the Earth.

Cross-DOS

Since Workbench 2.1, the program Cross-DOS has been part of Workbench. This program allows you to copy data on to and from PC-disks. You can format drives as PC-disks and, by using such programs as Apple File Exchange, even transfer data on to Apple Macs. Of course, this is the limit of this program – you cannot run any program that isn't an Amiga program, but it *does* mean you can move text and image files around and you'd be amazed at how useful this is.

If, for instance, you write a file at home on your trusty Amiga, but want to output it at work, you can save it as an ASCII file and put it on to a PC-disk. Filename restrictions that are caused by MS-DOS still apply, meaning your names must be only eight characters long and can have an extension of three characters (e.g. amigadoc.txt).

Cross-DOS is available as a separate package. Although most people who have it automatically will be Workbench 3 users, it only requires Workbench 2 and you can easily install it on to either floppy or hard drive. Now in version 6, this update is supposed to be faster at reading and writing to PC-disks. The Workbench bundled version is a crippled version which is almost equal to Cross-DOS 5.

The commercial package can even access MS-DOS formatted hard drives, both real and simulated partitions. Real partitions are true MS-DOS formatted drives, while simulated ones are files on an Amiga volume that are pseudo MS-DOS partitions.

Price: £49.95 (phone for upgrade prices)
Supplier: HiSoft
Contact: 01525 718181
Verdict: 80%

While the commercial Cross-DOS is the best known PC-disk reader for the Amiga, there are actually some PD and Shareware products that can read PC floppy disks. Two of the best are MSH and MultiDOS. I personally found MultiDOS the easier to use, but both should be available from PD libraries for you to try out. Both these products are quite old, which means that Cross-DOS 6 should outperform them in terms of speed and flexibility. For the occasional user though, they are definitely worth investigating.

Cross-Mac

If you are mainly interested in converting files from the Mac to the Amiga, then Cross-DOS and the like might not be the best programs. The makers of Cross-DOS also produce Cross-Mac, which will allow you to read Mac-disks.

To use it you either require a HD drive or an Amax cartridge with a Mac 800K drive or an Amax II plus/Amax IV card. As with Cross-DOS, hard drives are also supported. The advantage with Cross-Mac is the fact that you can read Mac HFS-disks and CDs. Also, although you can use Apple File exchange and place things on a PC-disk to be read on the Amiga, this is not ideal as it means the data is going through two filters. With large files, you can often get data corrupted, as has often happened to me. It's simply a question of tools for the job.

If it were the same price as Cross-DOS, I'd leap at it, despite the hardware restrictions. At this price, I can see people muddling through with the PC version, even though it's not ideal.

Price: £99.95
Supplier: HiSoft
Contact: 01525 718181
Verdict: 70%

39 can simply slap a CD in the drive and boot it up. Although most of the changes are superficial ones that CDBoot makes to the startup-sequence, this program does add quite a few things, such as CD^{32} controller emulation.

Because of its ease-of-use and stability, this is a very tempting product. It seems that you don't get *that* much for £25, but it does exactly what it says it does.

CDBoot

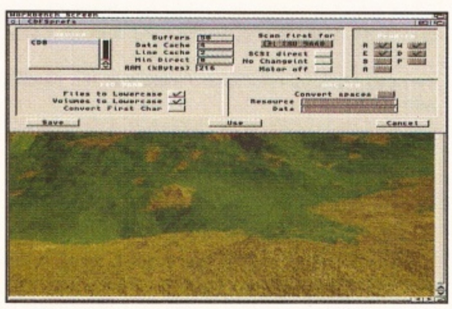
Price:	£24.99
Supplier:	PD Soft
Contact:	01702 466933

Verdict: 78%

Cache CDFS 2

This program is a whole update for CD drives and contains much more than just CD^{32} emulation, which is a good thing. The CD^{32} emulation doesn't seem as stable as CDBoot.

The program is installed easily enough and, like CDBoot, can be put on to a hard disk, or used to create a self-booting floppy from which the CD drive will boot. When it boots, though, a preferences screen appears from which you can fiddle around. While this means that you can alter settings and choose whether you should emulate the controller or not, it also means that you have to try various settings before you can get some CD^{32} software to run. Even then, I found that it sometimes crashed.

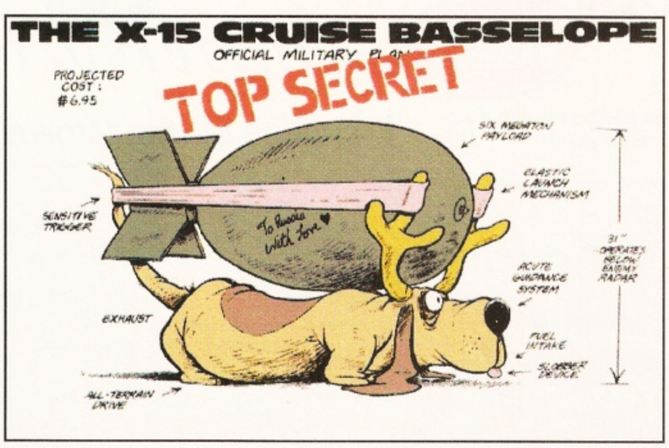


Cache CDFS 2 has a standard preferences Interface that makes it easy to configure.

In addition to the CD^{32} emulation, this program allows you to read Mac CD-ROMs. Most CDs use a standard filesystem which means that any computer can read the data on the disc, even if it can't use it. So a JPEG on a CD-ROM could be read on an Amiga, a PC or a Mac. The Mac, however, has a system known as HFS, which will only be visible to Mac computers. Should you try and examine the files on an Amiga, the CD will appear bare. Cache CDFS has a preferences screen on Workbench that allows you to attempt to scan for these files.

Hey presto! A set of files suddenly appears. As you can see, it is possible to obtain data from these discs now as well. Obviously, as with Cross-DOS, this does not enable you to run Mac programs, only to transfer data.

All in all, Cache CDFS is a mixed bag. The CD^{32} emulator is a little bit of a let-down (don't get me wrong, I did sit and play away at The Guardian on an A4000, so it *does* work), which perhaps is because it's too complicated. The ability to read Mac-CDs is a boon for serious users, though, and really goes to completing the Amiga's cross platform abilities. ■



When using Cache CDFS 2, it was possible to retrieve and use files like this from Mac HFS CDs which normally cannot be accessed on the Amiga.

Cache CDFS 2

Price:	89 DM (approx £30)
Supplier:	Hirsch & Wolf OHG
Contact:	0049 2631 833990

Verdict: 78%

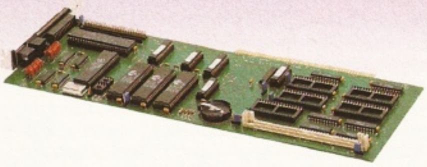
HD drives

Both PCs and Macs actually have one advantage over the majority of Amigas (A4000s excepted) in that they have high-density drives fitted as standard. The Amiga drive is a double-sided drive, which can be annoying since most PC and Mac software comes on 1.44Mb high-density disks. In the case of MS-DOS, you can return your high-density disks and ask for them to be replaced with double-density ones. If, however, you are intending to do a lot of file-swapping and emulation, then it's probably a good idea to invest in a high-density drive for your Amiga.

EMPLANT

E586DXSM Emulation Module

The new E586DX emulation module offers a high speed 586DX (FPU, MMU, and new instruction set) emulation with complete low-level architecture support, giving you the ability to run DOS, OS/2, NT, Windows 3.x, and even Chicago! There is support for MDA, CGA, EGA, VGA, SVGA video modes (dependant on hardware, AGA or a supported graphics card is required for VGA/SVGA), sound, joysticks, floppy drives, hard drives, extended memory, and more! Requires PC BIOS, not supplied.



Macintosh® Emulation Module

The Macintosh emulation module is a 'generic' Macintosh with the speed of the emulation depending on the processor your Amiga is using. An A3000 is equivalent to a MAC IIci. An A4000 is equivalent to a Quadra 900. Support for up to 16 colours is provided for non-AGA machines. A4000 owners can use a full 256 colours! Up to 24 bit (16 million+) colours is supported using third party video boards. Built in multiple file transfer allows for quick and easy transfers between the Amiga and MAC emulation. Support for AmigaDOS devices, Scanners, CD ROM, MIDI, SyQuest removable drives, Printers, Modems etc. Full stereo sound is supported too! Requires Macintosh ROMs (not supplied).

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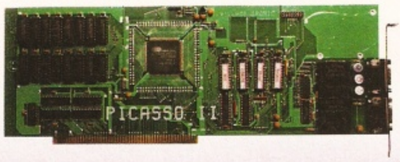
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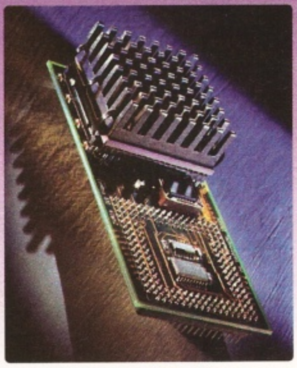


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Blittersoft deliver the fastest 68040 accelerator ever for the Amiga 4000/040, setting a new breakthrough in price and performance. The new Doubler 4000 50 MHz 68040 accelerator delivers across-the-board speed increases for all applications and system functions, translating into a significant productivity gain.

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The Doubler 4000 accelerator is an easy-to-install daughter board that simply replaces the 25 MHz 68040 CPU socket on the Commodore Amiga 3640 board. Anyone who can install a SIMM can install the Doubler 4000. Customers are supplied with photo-illustrated installation instructions plus the necessary extraction tool to perform the installation.

Simply putting a faster processor into an Amiga does not help much unless the system can supply enough data to keep it busy. That is why the Motorola 68040 contains a large on-chip cache. This cache frees the Doubler 4000 to work semi-independently of the Amiga memory subsystem. In fact, 85% of the time the cache contains the data and instructions necessary for the Doubler 4000 to operate at full speed.

The Doubler 4000 includes an on-chip math co-processor, and will dramatically speed up any application - such as rendering - that depends on calculations. It is completely reliable and system safe. An integral cooling system ensures that the Doubler 4000 runs cooler and more reliably at 50 MHz than the original processor.

RELATIVE PERFORMANCE (SysInfo V3.15 benchmarks.)

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CPU MIPS	-	A4000/40	: 18.76	DOUBLER 4000	:	37.72
DISK MBYTES/SEC	-	A4000/40	: 1.40	DOUBLER 4000	:	1.58

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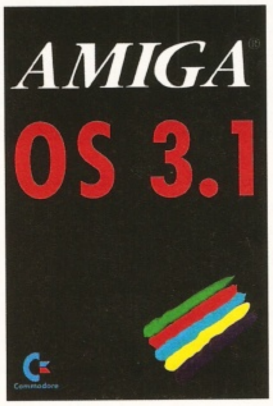
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OS 3.1



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* Please specify machine. Note that revision 3-5 motherboards require linking to be added. We strongly recommend that a professional computer repair/service company undertake fitting. We cannot exchange any damaged or incorrectly fitted components

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Organiser

Keep forgetting gran's birthday? Omitted to get your work done? Need a diary, but can't stand Filofaxes? **David Taylor** *thinks he's found the answer.*

This package landed on my desk and to say I was dubious would be an understatement. Now I'm as forgetful as the next person, so much so that I've had to get an electronic organiser so it can remind me of what I'm supposed be doing, but... Where was I? Oh, yes, forgetfulness (cue canned laughter). Still, a full priced organiser program seemed a bit much. So, I'm going to be completely honest...

Wow! There are plenty of PD and shareware reminder utilities and some of them are excellent, but the quality of Digita's offering simply outstrips them. It has the usual look that Digita's programs have adopted, so Wordworth users will know what to expect. I haven't even had to look at the manual or on-line help, the whole program is so intuitive and easy to use.

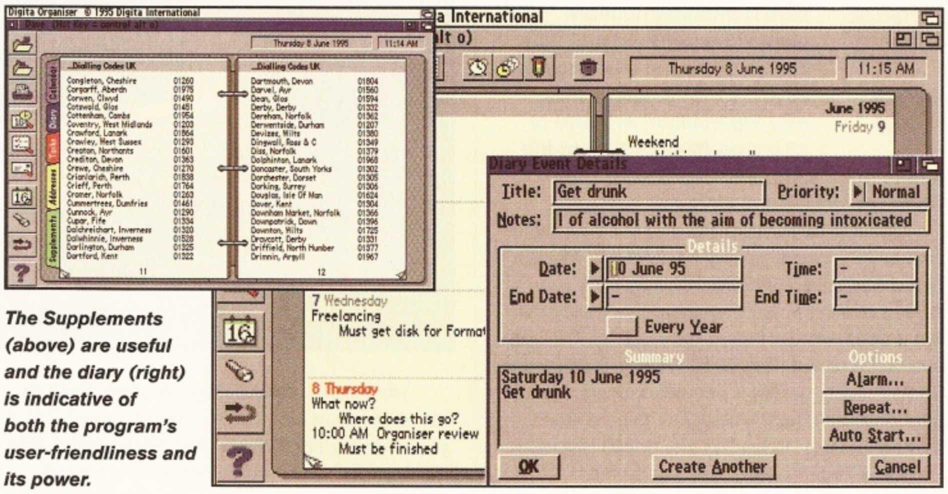
The best thing is to probably go through the features in the order they are sorted within the virtual Filofax that makes up Organiser. The first part is a simple calendar with four months displayed on the screen. You can flick through the months and then, if you click on a particular day, you will skip to that date in the diary area. This simple cross-referencing is one of the little touches that sets Organiser apart.

The diary couldn't be simpler to use. Simply click on the day and a window pops up in which you can enter the title of the event, together with the notes on it, and then enter a time for the alarm function if you want. Or, you can use this alarm feature to launch programs. This can be made to be a rather useful feature. Think about it, how about launching a virus checker every week so that you don't forget to scan your disk?

Each entry can be given a priority from low to highest and the diary has four different view modes, so you aren't limited to a small space to view your entries. The views range from at-a-glance, to page-per-day.

See for yourself

You want to know more, but would like to try before you buy? Last month's Coverdisk 1 had a demo of Organiser on it, so if you'd like to test it before you buy, here's your chance. If you don't have last month's issue, back issues are available – see page 104.



The Supplements (above) are useful and the diary (right) is indicative of both the program's user-friendliness and its power.

There are also some themes for the diary pages which will allow you to have certain days marked. 1995 themes include horse racing, astronomy, celebrity birthdays (eh?) and historical days.

The next area is for tasks, where you can enter your workload and assign priorities, which will sort your work for you so you know what to do next. And when you finish a task, you get to add a satisfying tick next to it!

There is a comprehensive address book set out in the usual A-Z way. As with everything else, entering the data is a doddle. If you have a database with addresses on already, then it might be possible to import it to here and save yourself some typing.

The last area is one called Supplements. These are like the little pieces of info you get in diaries or filofaxes. OK, some of them strike me as a bit weird, but what do I know? Maybe angling tips are of interest. Still, I've installed some of them, like the world time zones and the dialling codes. It's even possible to create your own, which is a bonus.

As if this weren't enough, Digita have really thought about how to polish the program. Forget the intelligent way that you don't have to enter end times, but you can say how long you want something to last for. Forget the nice icons that enable you to skip to areas. What about the way you can put a project icon in your WBStartup drawer so that Organiser will be started on boot up, either iconified or not? Nope, I'm not even going to mention it.

No, the real class comes from the searching utility, which allows you to find any data in all or any specified fields. So, finding a person is easy, whether it's for a meeting time or their address. It also means the supplements act like a sort of database and you can skip to a phone code easily. Add to that the print option, which can give you a hard copy of the day's event, a person's address, or your workload and I'm pressed to think of anything that's missing from this program.

Perhaps something like a calculator might be nice? Or maybe even a mini accounts package. I know that's really beyond the scope of this program, but having one integrated would be nice, automatically updating your finances on pay day. Maybe we'll see a version 2.

This type of program is only for people with hard drives, because booting this from floppy every day would be seriously daft. However, if you tend to forget things and want a digital Filofax, then this is the Rolls Royce. It can be picked up for less than the RRP of £40 if you turn to the AS mail order, which, considering the price of software, makes it reasonably priced. ■

Organiser

Price:	£34.99 from AS
Supplier:	AS mail order (page 34) or Digita International
Contact:	AS Hotline 01225 822511 Digita Int. 01395 270273

Verdict: 90% — **Star buy**

Samsung SyncMaster 17GLsi



Nick Veitch *strives desperately to improve his images.*

There is probably no more pleasant experience (not that can be printed in this magazine anyway) than getting a nice, new, big monitor. At a size of 17 inches (that's 43 cm to the metric generation), the SyncMaster from Samsung certainly qualifies as being big.

But size isn't everything. The usual problem with large screens, on any computer, is that the flicker becomes apparent. You may think your screen doesn't flicker in standard screenmodes, but it *does* – it just flickers very quickly. You can see that a screen flickers by waving your hand in front of it very quickly – you will notice a vague stroboscopic effect, where your fingers aren't blurred, but are "frozen" in one or two places.

On a larger screen, this can be more apparent, simply due to the area of the screen, but it depends on the type of phosphor, the dot pitch of the screen (the size of individual phosphor dots) and the screenmode. I was pleased to find the picture on the SyncMaster being surprisingly steady, although flicker becomes more apparent than usual in the interlaced modes.

Clock that

The SyncMaster supports clock frequencies of 85kHz horizontal by 120kHz vertical, which gives you the possibility of a whopping 1280x1024 pixel screen, although you won't be able to see screens this size with a standard Amiga. It also supports VESA modes, for high resolution, non-interlaced displays, but, again, you will need some sort of display card, such as the Picasso, Rainbow, or Retina, to be able to get the best out of this monitor.



With a dot pitch of .28, the images on screen are sharp, very sharp.

The monitor does not synchronise down to the levels used by ordinary low-res screens, so if you have any applications that require lo-res (like most games) you'd better not throw your old monitor away. If you want to use this monitor on the standard Amiga output, you will need a D-type to VGA convertor (available from Silica and a load of other places) since the SyncMaster comes with a VGA lead.

You could, if you want, link it up to anything with an RGB and sync output, because, as well as the VGA connector, this monitor has five BNC connectors on the rear, for any standard RGB and separate or composite sync signals.

A distinguished panel

A pop-out panel on the front of the monitor will allow you to adjust most of the screen's operational parameters. Curiously, the contrast and brightness are still controlled by thumbwheels. Unfortunately, in common with almost all monitors these days, this model is compliant with various low-emission directives.

Basically, this means that even on full brightness, you won't be able to use this monitor as an alternative lighting source. I suppose it *also* means you won't contract any nasty skin complaints, but it's always nice to have the option.

The panel can be used to adjust screen size, offsets and compensate for the "pincushion effect" – the distortion of the image at the edges. There are also various controls for adjusting screen colours, so you can attempt to match your screen colour for colour output work.

An unfortunate habit when using the more unstable Amiga resolutions, is that the monitor occasionally loses the sync signal and you have to wait around five seconds while it clicks away like a Cortina Mk3 indicator until it locks on again. This also happens when you change screenmodes, which is mildly annoying, but it's common to all true multisyncs.

With a dot pitch of .28, the images on screen are sharp, very sharp. The screen itself is coated with various substances to reduce glare and static, which seem to be effective, but you always need to leave them a few months to see just how effective they really are.

Conclusion

Although expensive, this monitor really *does* "do it all". It has enough posy buttons, strange controls (it has a Degauss button!) and weird connections to impress all your friends; it's very big and, most importantly, it produces a clear, sharp image at just about any high-res screen mode your Amiga can throw at it.

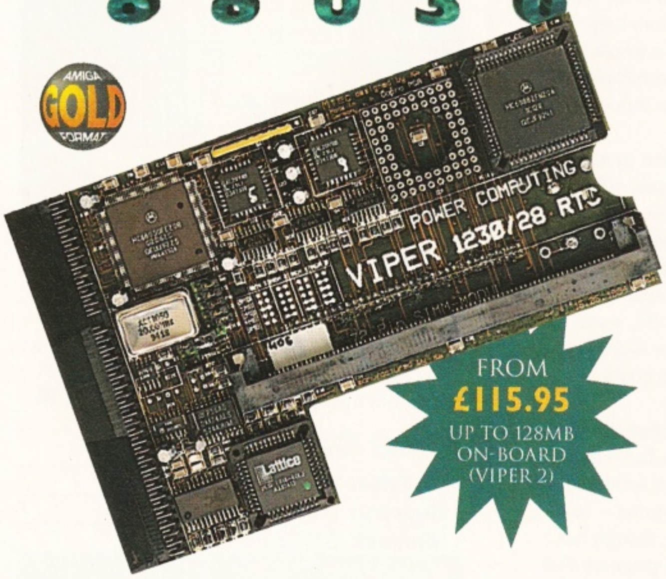
It would be ridiculous to spend this amount on a monitor if you don't already have some sort of 24-bit card – the Amiga can't make full use of this display without one. If you do have a card, but are using it with a sad, old monitor that can't support most of the modes, or even a 1960, which is good, but just a little too small for detailed work, you could buy worse. There are cheaper monitors on the market, though. ■

Samsung SyncMaster 17GLsi

Price:	£699
Supplier:	Samsung
Contact:	0181 391 0168

Verdict: 81%

VIPER 68030



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Final Data 2

Hardly having time to catch our breath since the release of Final Data, SoftWood have already updated it to version 2. **David Taylor** *looks at what's new.*

This is one wacky database. It is still convinced that it's a spreadsheet. Since the first release (see AS49), SoftWood have added several new features. For those who haven't seen this program, it is a pretty powerful database that differs from its rivals in its approach.

The whole layout of the database is quite strictly controlled and resembles a spreadsheet much more than a standard database. That's not a criticism; there are no rules carved in stone saying what a database should look like.

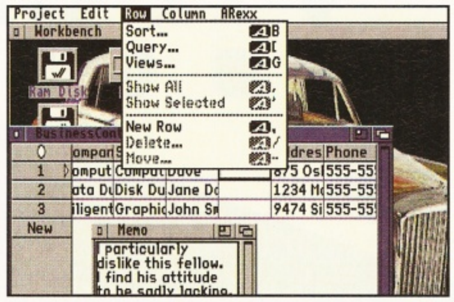
As with all programs like this, you can set up and edit fields, containing most types of data, including calculations based on other fields. A RCalc type has been added, which makes calculations based on the previous column to enable you to create running totals for such things as accounts.

More importantly, a new memo field is now available, which allows you to enter a document that contains more words than can be fitted into a column. Although this adds some power, I wish the mini document editor that pops up had an ASCII loader, so that you could import documents. As it is, you could be in for some typing. If this feature had been more fully developed, it would have added a whole new dimension to the database's possibilities, with document databases possible for those with adequate system specs.

A View feature is now included to allow the creation of sub-lists from databases, such as horror films from a movie database.

The last really major improvement (there are many minor changes) is the addition of a query feature. Better than the simple find, you can specify multiple parameters. So, if you had a car database, you could query for records of a blue Ford with H registration that costs £10,000 or more.

Final Data 2 is very easy to start using, even if you are not used to databases, but it can produce results that are less than aesthetic. The fact that it still cannot handle pictures – even IFFs would have been adequate, though not perfect – is the biggest flaw in a program that otherwise offers some original features. As an upgrade for £10, users of the first version get a new disk and manual addendum. It seems a bit pricey, but the additional features are useful. ■



Final Data 2 can be opened on Workbench as a Window, with databases forced to fit to size.

Final Data 2

Price:	£39.95
Supplier:	Harwood Computers
Contact:	01773 836781

Verdict: 75%

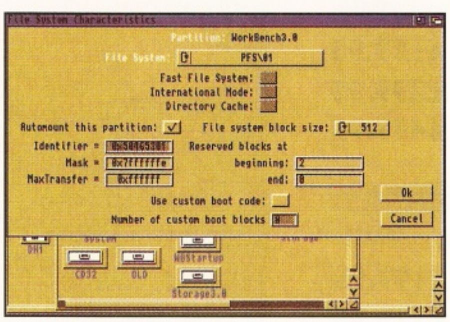
Ami-FileSafe

The Amiga has seen several filesystems, some official, some PD and now one that's a commercial release. **David Taylor** *updates his hard drive.*

The OFS (1.3 Amigas) is now fading in popularity and FFS (2.0+ Amigas) is being accepted as the norm on the Amiga. As FFS was an improvement in terms of capacity, so the new AFS offers more, but not just in terms of efficiency. AFS first came to life as PFS (Professional Filing System), a shareware product. It has now been refined and is now fully commercial.

The improvements this filesystem provides for floppy users are useful – you can get more on to your disks, but at this price it is really only going to be of interest to hard drive users. It can be installed on to rigid disk blocks using HDToolbox, but note that early versions of HDToolbox do not support such additions and you'll end up playing around with mountlists.

The big problem with installing new filesystems is that you'll have to back up your drive and reformat the partitions. AFS is going to have to offer quite a lot to encourage you to do this!



Ami-FileSafe is a boon for professionals and should be easy enough to set up in HDToolbox.

AFS stores files in a different way to the norm, setting aside a part of a partition for file structures instead of using headerblocks. This is much more efficient, especially if you store a large number of small files.

The real area of interest for users, though, is in the safety of AFS. It is impossible to invalidate an AFS volume, so if you crash your system when you're writing to it, you've got nothing to worry about. With limitations only caused by your disk being so close to full that it's not possible, this even holds true when overwriting files. You will never again get a corrupt disk from this problem.

The safety this system offers must make it interesting for professional users who can't afford the time to recover data and repair disks. A little pricey perhaps, but you can decide for yourselves whether it's worth it by taking a look at the AS demo on this month's Coverdisks, which allows you to create test partitions of up to 10Mb. Only try it out if you are sure you know what you are doing. ■

Ami-FileSafe

Price:	£69.75
Supplier:	AS mail order (pages 34–35), or Fourth Level Developments
Contact:	AS hotline 01225 822511 Fourth Level 0117 9854455

Verdict: 80%

Flexi-Link

For quite some time the only quick and cheap way to link two Amigas together has been with Parnet. Flexi-Link wants to change all that as **David Taylor** *finds out.*

Quite a staggering amount of AS readers actually own more than one Amiga if our reader survey is anything to go by and the first thing you tend to want to do when you've got two machines is link them together. The only feasible method for most people has been through a form of parallel link, which, until recently, has meant Parnet.

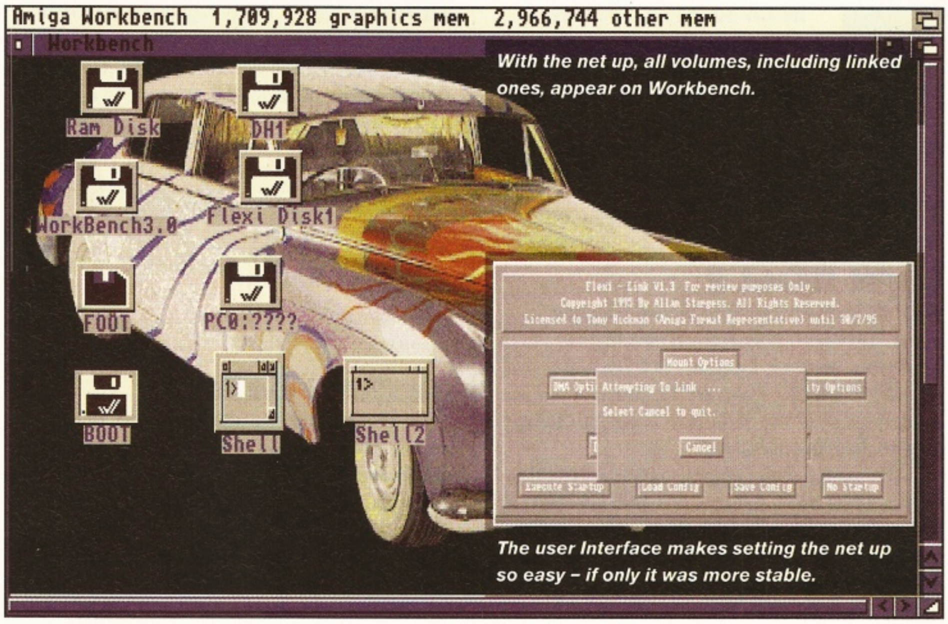
Parnet has several drawbacks: it can be tricky to set up, sometimes simply refusing to recognise the other computer. You can end up messing around for hours with mountlists, trying to get the net up. Once up, the problems aren't over – Parnet frequently throws up requesters for no apparent reason, which becomes more than a minor annoyance when you are copying lots of files. It is also quite slow. A new piece of software, called Pronet, tried to improve on this and did attain better transfer speeds.

Flexi-Link takes a whole new approach to the subject and, although it uses a custom cable like Parnet, the similarity ends there.

The package consists of two disks, a manual and a cable. The theory is simple: plug the cable into both parallel ports and boot each computer with one of the disks. You should then get a screen with the Flexi-Link interface in the background and a requester in the foreground saying it is attempting to link and then one confirming the link and asking you to continue.

So far, so good. Once you get to here, all you need to do is state which drives you wish to mount and which one you wish to boot. In order to boot that drive, the program re-assigns all the necessary paths, like s:, t:, devs, sys:, etc., to the hard drive. Then it should all boot and everything should be OK. The same should then be done on the other machine and voilá, two linked computers.

The advantage over Parnet here is that all the drives will appear on your Workbench screen and you can access them as if they were simply part of your standard hard drive. When this works, it is superb; you can run programs from the other hard drive and I barely noticed a difference in the time it took to load. It has to be said that I'm used to one of the drives being quite slow, but, even so, the ability to run programs like this over the net is impressive. Thus far, it scores heavily over Parnet. However, Parnet has one niggling plus, you can access the RAM on the other machine, whereas Flexi-Link can only access a RAD drive (i.e. a recoverable RAM drive).



With the net up, all volumes, including linked ones, appear on Workbench.

The user Interface makes setting the net up so easy – if only it was more stable.

It is theoretically possible to install Flexi-Link on your hard drive by simply copying the program across and using it as a CLI command. In practice, I'm afraid I couldn't run it from hard drive. There are various commands that need to be made resident and I suspect that the versions I was using were too recent.

Here comes the crunch... Flexi-Link isn't stable enough. Like Parnet, there are problems.

Flexi-Link worked fine when I had an A1200 and an A1500 linked up, as long as I only went as far as Workbench on one machine and left the other at CLI level. As soon as I went to Workbench on both, they froze. Trying it on an A4000, it crashed immediately and on an A3000, the Workbench problem re-occurred. It also throws up Intuition attempting to reset Workbench requesters far too often.

I am very impressed with Flexi-Link to a degree. As long as I only use it on one computer to access the other drives, it's fine and I have got a use for that, but it needs debugging so that it works on all Workbenches.

Speaking to its author, we came to the conclusion that the problems I experienced probably arose from the different OSs, because he is adamant that he can't replicate my experiences. So, it's possible that it would all work fine on a standard computer, but *who* has a standard computer? There isn't an Amiga in this office that's set up in the same way as any other.

What I would say, then, is that we need a version 2 software, which would include a hard drive installation script and a Workbench icon, with all the necessary commands made resident, so that you could launch it from Workbench as opposed to CLI only. The startup-sequence on the floppy needs tidying as well, so that the Shell is closed when Workbench is loaded.

The problems then are a mixture of minor and major flaws, but all of these could be overcome with some effort. I sincerely hope that we will see a second, *stable* version of this piece of software. Since I'm stating my "wish list", how about dropping the price closer to the £20 price tag of Parnet and also including an option to state the length of cable you want? ■

Flexi-Link

Price: £39.95

Supplier: Alan Sturgess

Contact: 01452 306252

Verdict: 60%

CD-ROMs

This month Amiga Shopper supplies coverage of a staggering 19 compact discs. **David Taylor** *gets to grips with the mountain of CD-sets he's had to scale.*

The CD suppliers certainly aren't messing around this month. Not only have we got seven CD-sets to review, but a total of *19* discs are covered. From more of the tired formula to some brilliant new additions to anyone's CD-collection...

Light ROM 2

This CD is dedicated to LightWave/Toaster users. It contains hundreds of megabytes of objects, textures, images, PS fonts and scenes. Thankfully, there are thumbnail renderings of all the objects to save you having to load them in yourself.

The quality of the objects varies, as you'd expect when there are *so* many, but, overall, I was quite impressed. Aside from the collection of PD objects, there are also some professional objects, including a collection of objects and texture maps by Kevin Lude, which were previously available commercially.

Some of the objects have been around for a while, like the demo objects for Mangababes, but the collection does provide a reasonable library. The categories are so well arranged that finding the sort of object you want is easy. At the price, I think this CD-ROM is truly excellent value and an asset to all LightWave users.

Light ROM 2

Price: $39.95 (approx. £25)
Supplier: Amiga Library Services
Contact: 001 602 491 0048
Verdict: 90% Star buy

Texture Gallery

From the same stable as Light ROM, this double-CD pack is a brilliant accompaniment to the former CD. This one contains 1.3Gb of textures supplied in a variety of formats: IFF, Targa, JPEG, PICT, SGI and TIFF. As with the other CD, there are thumbnail indexes to help you choose the best texture.

The textures are sensibly divided up, with directories containing different styles of texture, such as wood or marble, which allow you to choose from different types of the sub-group you need.



The textures range from carpets to fire and really come into their own when 3D modelling.

OK, so looking at a set of carpet examples on screen isn't the most exciting prospect, but this is an ideal way of getting top-quality textures for all occasions.

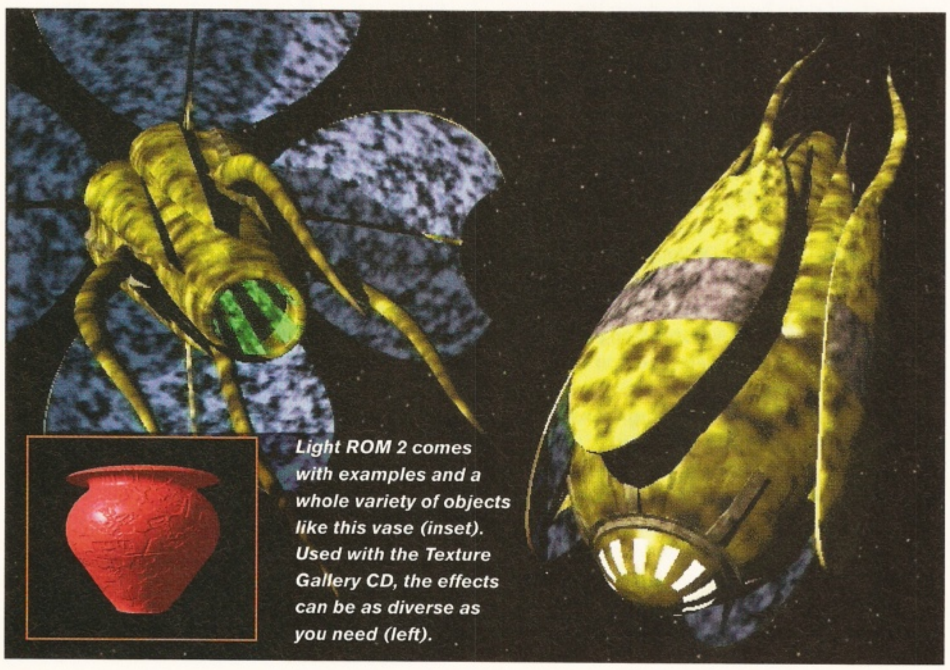
Texture Gallery

Price: $44.95 (approx. £30)
Supplier: Amiga Library Services
Contact: 001 602 491 0048
Verdict: 95% Star buy

The Sound Library and GRX Workshop

This double-CD pack was a tad baffling. It is a collection of shareware for both the Amiga and the PC, with the programs separated into the appropriate directories.

However, as far as I could see, almost all the CDs were solely dedicated to music, with only a cursory selection of graphics



Light ROM 2 comes with examples and a whole variety of objects like this vase (inset). Used with the Texture Gallery CD, the effects can be as diverse as you need (left).

A Drop in the Ocean

This CD isn't actually a CD-ROM. It's an audio-CD by The Craft Brothers. No, AS hasn't turned into a music magazine; the songs on this CD have been created using an Amiga. Each CD comes with an Amiga support disk, packed with information about the musicians, their work and music files. As such, the CD should be of interest to all Amiga musicians up to the professional level. For details of the floppy disk and the music disk magazine, as well as the Compact Disc, contact the musicians themselves at 12 Mount Road, Halton, Runcorn, Cheshire, WA7 2BH. ☎ 01928 568762.

programs, which is just fine, but makes the title a little odd.

There's no denying that it is the most complete collection of modules and samples that has been produced, but this type of collection is getting a little tired. Last month we saw the Terra Sound Library, which I thought was ideal for anyone who wanted to get a good collection from scratch. It seems that I have little choice but to draw the same conclusion about this CD, but it's hardly innovative stuff. There's just a hell of a lot on there.

The Sound Library and GRX Workshop

Price:	£19.99
Supplier:	PD Soft
Contact:	01702 466933

Verdict: 87%

Ten On Ten

Small on packaging (thankfully), but large on content, Almathera have launched a rather mind-numbing CD-set. Ten On Ten, in case you haven't guessed it, is a pack of 10 CDs.

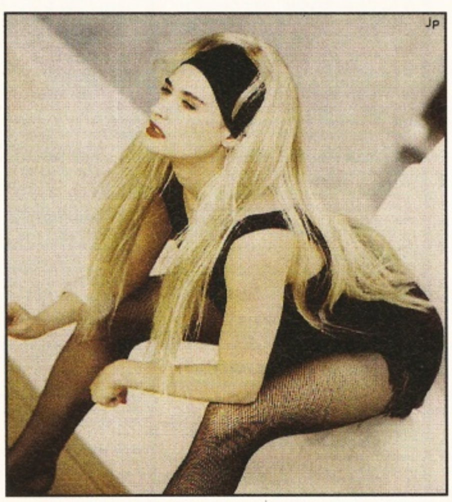
Most of these CDs have been released before, but there are three new discs. Some of the CDs are a little lame, but you cannot deny that this *does* offer incredible value for money. With thousands of megabytes on offer, it must work out at around a penny per Mb. Not everything will be of interest, but you won't be hard pressed to find *something* of interest.

Some of the highlights are the World Vista Atlas, a multimedia presentation of sorts, with in-depth cross-referencing, which makes it ideal reference material for school children. I had some trouble getting the Illustrated Shakespeare to run, but the bard's works, complete with pictures, makes it another useful CD. Two of the new CDs, the fonts and clipart CD and the photo library CD, are instant libraries for people who want to jump into DTP.

The other discs in the set are as follows: CDPD 1, CDPD 2, Demo 1, Pandora's CD, Team Yankee, Networking and Comms CD. At this price, it has to be the buy of the month!



Almathera's Ten On Ten supplies everything from photo images of flora and fauna...



...to photos of Hollywood movie stars, as well as slightly less glamorous cars and planes and...



The Clipart CD contains some fine images, but too few come up to this superb quality.

Ten On Ten

Price:	$39.95 (approx. £25)
Supplier:	Almathera
Contact:	0181 687 0040

Verdict: 97% Star buy

World Of Clipart

Another double-CD set, this time with a collection of around 40,000 images. The trouble with this CD is that the images aren't of the best quality and some of them have been included on many other discs.

Clipart is a useful short-cut for DTP and professional users who can't, for reasons of time or ability, create their own images. The images are Public Domain so that they can be included in your work. World Of Clipart provides a huge library of such images, but a lot are useless, because they aren't of sufficient quality.

Some of the mono images are awful and only there to fill up space, whilst the colour ones are not all of photographic quality, which they should have been on a CD. Then, everyone can downgrade them to the quality they require. Some of the pictures are top-quality, but others are simply poor quality scans of line drawings.

Had Almathera's CD-set not contained their two new discs that cover this area, I might have been kinder, but I'm afraid other sources simply provide better value for money.



...even a complete and illustrated set of Shakespeare's works.

World Of Clipart

Price:	£17.99
Supplier:	Epic Marketing
Contact:	01793 514187

Verdict: 63%

Hottest 5

This latest collection of software comes with a booklet that acts as an index to help you find the programs you want. Each archive (the programs are stored in lha format) has a short description.

Whilst there are some things of interest, such as music programs and WB utilities, as well as 3D objects and JPEGs, this CD is a little game-heavy for the serious user.

It would be more sound to invest in the latest Aminet CD, to be honest. ■

Hottest 5

Price:	£19.99
Supplier:	PD Soft
Contact:	01702 466933

Verdict: 60%

Hottest 5 CDROM



CD100 - Includes a FREE 54 page printed Book with all the programs Names, version numbers & descriptions. Gives you an easy way to view the programs contained on the cdrom. Hottest 5 is the first cdrom to come with a free printed book for describing the shareware titles.

CODE	CDROM TITLE/DESCRIPTION	PRIC
CD060	HOTTEST 4 (DISKS 3001-4000)	£19.9
CD061	UTILITIES V1-1500 (VARIOUS DISKS 1-V1500)	£19.9
CD100	HOTTEST 5 (4001-4300/V1501-V1750)	£19.9
SUB3#	SUBSCRIPTION to the HOTTEST RANGE	£14.9



Contains the continuation from our Various floppy disk library (disks V1501-V1750), and our main library disks from 4001-4300. This cdrom covers a variety of Public Domain subjects; Utilities, Games, Mega Demos - AGA, Euro Demos, Demos, Product demos, Disk Magazines, Music Titles, Slide shows, Clipart, Fonts, Rave Dance Tracks, Sampled Sounds, Images in JEG, GIF, AGA 256, Imagine Objects, Textures, Animations, Sound Samples, Music Modules, Colour Clip art, Educational disks, Adobe type 1 fonts, DPaint fonts, Scalable fonts, Business programs, Word processors, Graphic utilities, Workbench tools, Magic Workbench icons, Music production, Hard drive utils, Comms, Virus Killers, Video production, Emulators, Hobbies, Fractals, Printer utilities, New Printer drivers, & much more.

Get your HANDS on the Hottest's CDROMs, the day on which they a released, YOU CAN NOW! preorder them with our subscription servic all you need is a credit/SWITCH card. You wll only be charged £14.99 + £.75p when release.

CD200 Hottest 6 will be released August 1995. and contain disks 4301+ and V1751-V2000



CD142 MEETING PEARLS 2 £9.99



The disc contains the following software:

- 9Mb Disk, hard drive, CDROM and SCSI tools.
- 23Mb developer tools, comodore includes.
- 59Mb text, FAQs, CD contents files, etc.
- 15Mb Games.
- 22Mb Slected html-pages.
- 52Mb Graphics programs and data.
- 16Mb from The Party '94'.
- 15Mb various other tools
- 8Mb educational software
- 4Mb NetBSD for the Amiga.
- 16Mb terminal programs
- 22Mb Animations
- 6Mb Music programs
- 6Mb midi programs
- 35Mb pictures
- 37Mb Linux for Amiga
- 17Mb Fractals
- 82Mb TeX installation
- 36Mb movie database
- 31Mb archive for Psion
- 24Mb modules

New Release

CD113 GIGA GRAPHICS (MIRKO



is the best graphic collection with more than 10,000 pictures. A must for every Amiga Fan. Perfect for AGA Amigas. All images in IFF format (24 Bit & HAM8). Its a 4 CD set quad pack.

GIGA GRAPHIC CDs 1-4 — 4-CD-SET — Its Quad Pack - 4

CD105 GRAPHIC SENSATIONS £19.99



Do'nt BANG! your head against the wall, in search of Imagine software get This! The Graphics Sensation CDROM is a collection of the best Graphics disc, 24bit images, Animations like the famous JUMPGATE (5.7Mb), The Apache 3d helicopter and the Space Animation by Samuel Rees. A huge collection for IMAGINE Users - that will take you years to look through, catagories include: Anatomy, Animals, Atributes, Aviation, Bathroom, Botany, Building, Clocks, Computers, earth, Fonts, Food, Furnitur, gears, Kitchens, Lamps, Land, Logos, Misc, music, Outlet, Phones, Ships, Space, Sports, Text, Toys, Tree_Kit, Vehicles, Video & Weapons. LIGHTWAVE Users are treated to subjects like: as the imagine section, Textures, Tools, Toys, Tutorial, vehicles, Video, WavPoint & Weapons. 240 ADOBE TYPE 1 FONTS, and a large Textures section.

CD147 CD WRITE £39.99



What! You still can't write to your CDs CDROMs have long been as essential part of Amiga computing. Many users already own a CDROM drive. and the number of software packages available on CD is increasing steadily. Unit Now, through, it was not possible to write to CDs. We have Found new revolutionary software by Ralph Badel and Stefan Ossowski's. CD-Write enables you to virtually write to CDs with an ordinary CDROM drive. Requires a hard drive system.

CD38 MULTI MEDIA TOOLKIT2 £22.99



The long awaited sequel to Multimedia Toolkit has arrived, its a double disc set aimed at music and video professionals and enthusiasts. the contents include the FULL OctaMED v5.04 package, (with Aura sampler support). OctaMED will run directly from the CD or can be installed to hard disc. In excess of 250Mb of support files for the OctaMED package have been included, made up from modules, samples, midi files and utilities. Full documentation in Amiga Guide format. OctaMED is a commerical program & is simply the best 8 voice music maker & v5.04 is the latest version produced. In addition we have included the full MidiCraft collection of midi & music X files, samples, modules, tutorials, and utilities. Midi craft are professional musicians and have provided over 50Mb of data from their collection. The graphics side of the collection is well catered for with 500 24bit images geared towards backgrounds, textures and general intrest subjects. Over 140Mb of Imagine objects, 50Mb of Lightwave objects, and loads, loads more!.

LIGHT ROM 1995

CD057 LIGHT ROM £39.99 - CD114 LIGHT ROM 2 £39.99

A MUST HAVE CDROM FOR THE LIGHTWAVE ARTIST.





A Multi-platform CDROM that can be used with all versions of Lightwave, including AmigaDOS, Mac-OS, Windows/NT, MIPS, Aplha and SGI. Contains 650 megabytes of: Ready to render Lightwave scene files and thousands of Lightwave Objects. A collection of 24 Bit Textures ann Images in IFF, Targa, and JPEG Formats. Exclusive "Showcase" Directory advertising the talents of Lightwave artists world-wide. All Lightwave Textures, Images and Objects come with thumbnail renderings for easy previewing. One hundred percent Lightwave/ Video Toaster Material. Outstanding value at the incredible price of £39.99

CD150 AMIGA TOOLS 2 (TGV) £24.99



The successfull AMIGA-TOOLS series continues. All programmes on this disc are directly executable just like AMIGA TOOLS. You don't need to decrunch or install any of these programs. This cd includes: - Terminal Tools, Disk Tools, Printer Tools, DTP Tools, System Tools, Crunch/Decrunch Tools, Network Tools, Graphic Tools, Virus Tools, Hardware Tools, Commodities, A Music part, Compugraphic fonts, Demos and demo-versions, Emulators, Amiga Magazines, Magic User Interface, A compete Packet of TEXA, Cinema4D-demo version, Castilian demo version and so on!.

CD148 PHOTOGENICS (AGA/DISK) £49.99



At last the Amiga has a powerful image manipulation package with the ease-of-use and creative freedom of a traditional paint program. FEATURES, Realistic Air-brust, Chalk Pastels, Crayon, Marker Pens, Art Pencils, Felt Tips, EFFECTS, Add noise, Antique, Blur and Heavy Blur, Bricks, Displace Map, Emboss, Flip, Gradient Tint, Greyscale, Limit Min/ Line Art, Matrix, Mix Add, Diff, Or, Sub and Xor, Monocr Negative, paint, Pixelise, Randomise, Rub Through, Shar Shift Hue, Shift RGB, Solarize, Texturise, Tile, Tint and S tint and many more!. SUPPORTS MANY IMAGE TYPES, IFF-ILBM (2-256 colours), Windows BMP, GIF, JPEG, GEM

CD103 FRESH FONTS 2 £14.99



The Freshfonts 2 CD contains 632 megabytes of fonts for almost any computer system. Most of the fonts are freely distributable, except for the special Thiene font collection which are exclusive on this CD. Over 231 font families with upto 8 different sytes. There is a booklet provided with 24 pages of printouts of the fonts. There are also some programs on the cd dealing with fonts.

CD029 CDPD VOL 4 £14.99



Complete GNU C/C++ compiler v40 includes, C Manuals, E! the Language, PasTex 'Tex', Music: Complete AM/FM magazine and AM/ FMSpecial disks, Raytracing: Imagine objects, attribute files, textures, tutorials and guides, Persistance of vision: A complete raytracing system, Networking UUCP, SLIP & TCP/IP, Text: classic books, Internet guides, 350 Bitmap and 410 PostScript fonts.

CD040 EURO SCENE VOL 1 ALMATHERA £9.99



600Mb of Amiga demos and music. For the the FIRST TIME on CD. Euroscene brings you the many talents of the famed Euroscene gathering - drawn directly from the FUNET Internet Archive. Contains all party winners and many ground breaking productions. All archived and designed for BBS, Amiga CDROM and Unix.

CD006 DEMOS 1 £7.99 CD009 DEMOS 2 £14.99 ALMATHERA



Games - Over 100 ready to run with a simple front end menu, Watch anims spooling from CD, Sound Samples - Over 6000 IFF raw sound samples, Music Modules - Over 2000 modules with players, Demos - Latest PD demos and the best of the classic demos, Images - 100s of images, and much more!.

17 BIT CDROMS



CD007 17 BIT 1&2 £29.99

CD039 CONTINUTION £9.99

CD065 17 BIT PHASE 4 £19.99

PHASE4: 17 Bit have crunched every single new disk that has been added to their library of Public Domain aduring 1994 on to this single CDROM.

CD077 DESKTOP VIDEO £14.99



Original textures & backgrounds in JPEG, Overscan over 200 colour anti-aliased fonts in sizes up to 200 points. 3d object data for Light-Wave / Imagine / Sculpt, over 150 objects in each format. Current utilities - Imagge Studio, ViewTek, PP Show, Main Actor, Persistance of Vision, HamLab, Fractint, Anim players, Titling & Morph utilities, object converters, & more.

SPECIALS OFFERS



CD137 ANIMATIONS £7.99

CD41/45* RAY TRACING VOL 1 & 2

£7.99 Each or all 3 for £20



CD149 VIDEO CREATOR

£34.99



Create your own professional music videos using ANY music CD and your Amiga CD32. Combine images, animations, and graphics to create spectacular vi and record to any Video Record keep forever. Contains a pow editor, PsychoCycles, 3d grap Over 10000 images, Synchro Text, Random Rave, CD32 o Plus much more!.

LATEST LIBRARY DISKS

❑ ^ + 4271 **BOOMFIELD**
BoomFiled is a great version of MineSweeper. It has some new features: Great backround music. Auto mode. Hebrew and English support.

❑ ^ + 4275 **TACTICAL STARSHIP**
This is a strategy game based on tactical starship combat. Play revolves around maneuver and resource management.

❑ ^ + 4277 **INCINERATOR 3D**
is a 3D missile attack/defend game. It lets players attack an enemy city, as well as defending their own, from missiles arcing over the mountian tops. It features up to 24 simultaneous missiles, an attack helicopter, laser cannons, and force fields. PAL mode supported, and HD installable.

❑ ^ + 4279 **LORDS OF HOST V1.0**
A strategy game for two players based on a board game called Shogun. Features include flexible mouse/joystick controls, undo and redo of up to 500 preceding steps, fully intuitionized user interface. Complete source code, precompiled include files and debugger files included.

❑ ^ + 4285 **TOP HAT WILLY V1.2**
Nowadays a platform game means something that scrolls in eight directions at 50hz speed, has power-ups and jump-on-a-monster-to kill-it action. This is thought to be an improvement over the 8-bit-style platforms such as Jet Set Willy or Monty.

❑ ^ + 4302 **YUM YUM**
This is a game for children really. It is essentially a Pac man clone. The levels are very simple and the skill level required is quite low. The graphics and sound effects are quite amusing.

❑ ^ + 4306 **ZZZEP**
In this game you fly a Zeplin. You don't have a great deal to do accept for destroying a whole load of little round things whilst avoiding numerous dangers etc etc.. There is a trainer attached to this game if you find it too difficult.

❑ ^ + 4307 **CRYSTAL HAMMER '93**
A classic arkanoid clone with many excellent and colourful levels as you progress through it. Great graphics and sound effects. Very good.

❑ ^ + 4310 **MERCURY MISSION**
Terra-forming eh? What a business. You must initialize the Terra-formation of the planet Mercury by clearing it of five dangerous energy crystals. A thrust type game with good graphics.

❑ ^ + 4311 **PUCMAN**
This, as you may have guessed already, is a Pacman clone. The graphics are good and the playability is just about as close to the original as I have ever seen. an enhanced classic version.

❑ ^ + 4324 **DEMON V1.01**
is a patience cardgame based on one by the name of Canfield. It is reasonably difficult to play but there is a good help system built into the game.

❑ ^ + 4325 **INFECTION**
This is a superb four player puzzle/boardgame. Simply, you must try to take the other players' pieces by moving next to them. Good game.

❑ ^ + 4326 **TURBO THRUST**
Turbo Thrust involves two player racing high speed spacecraft. With split screen action you can't ask for more. There are tracks a plenty and options for speed and laps etc.

❑ ^ * 4333 **EMERALD MINE V6.0**
Preview ao Emerald Mine v6.00 Editor and Game. Totally rewrittin shareware version of Boulderdash/ Emerald Mine. Includes 4 Playable levels for ECS & AGA; Highscore/names saving and teamwork playing are disabled.

❑ ^ + 4334 **COMBAT 2000**
Welcome to Combat 2000, although it isn't yet. This is, instead a version of the classic mode that will be found therein. Yes there are still bugs and I'm still nagging Andrew,But the game will one day be completely re-written for now enjoy this version. This is a 2 player game.

❑ ^ * 4335 **OZZE**
The galaxy has open up for those species that have mastered methods of Interstellar travel.

❑ ^ * 4336 **TOTAL AXCESS**
Total Excess is a horizontal right to left shoot-em-up It was entirely made with AMOS and a special programing technics have been used to make this game really stand out in a crould. This is a MUST have program.

❑ ^ ^ 4337 **(AGA) A/THRUST**
An Amiga 'Thrust' type game. No 'ENGLISH' docs included. There is an english 'readme' included which gives quite a few hints. - 100% system friendly. - realtime 2-player-mode via the serial port - 2 players can play using the keyboard - it has a font & size sensitive GUI-frontend - lots of extra weapons - your own screens can be created and used - screen size upto 1024x1024 w/32 colors - optional splitscreen/fullscreen mode while playing via modem - sound effects

❑ ^ * 4338 **DELUXE GALAGA**
Deluxe Galaga is based on the game StarBattle (vic20) & has some of the features of Galaga and Galaxions. This is a simple shoot'em up game with good game play but not so much fancy graphics.

❑ ^ + 4339 **NEXUS 7 [ANDROMEDA]**
There are some superb graphical effects in this demo. Included are some outstanding 3D rotating fractals, a great routine showing a desk lamp jumping up a set of stairs, bouncing balls, pixel zooms, great music and much much more! Great.

❑ ^ + 4340 **ZEROS AND ONES [ASYLAM]**
This demo has some original routines such as the part which makes your monitor look as if its going on the blink! There is some more good stuff such as a spinning transparent multicoloured cube and excellent music. Good.

❑ ^ ^ 4341 **(AGA) SOULKITCHEN (AB)**
A great AGA demo! There are loads of different effects such as bouncing vector balls, some kaleidascope effects, a great cartoon picture and a superbly funky soundtrack. Excellent!! Does not work on non standard A1200s.

❑ ^ + 4343 **(AGA) JAMMIN' [HAUJOBB]**
A superb demo. The graphics in this demo are of an outstanding quality. The demo runs through very smoothly with some great logos, effects and more. The soundtrack in the most part has a reggae feel.

❑ ^ ^ 4344 **DEMO OR DIE**
A great production. There are some good original effects in this demo. One outstanding routine involves a dot vector skull rotating and then morphing into a dot vector hand. There is some good morphing of portraits at the end of the demo

❑ ^ + 4345 **(AGA) TENSION [APEX]**
Great AGA demo. There are some superb routines including one which has the APEX logo scrolling over a rippling landscape. Some great graphics here as well as a good soundtrack. Good.

❑ ^ + 4346 **RUMBLE RUBBLE**
A pretty bog standard sort of intro. Good graphics, good soundtrack, all the usual effects - dot vectors, bouncing balls etc plus some original routines such as the realtime raytracing of a rotating sphere!.

❑ ^ + 4347 **KILLING TIME (ABC)**
This demo starts off well with a 4096 colour rotating pixel zoom. Then everything gets rather long winded and boring. A three disk set which has some pretty good effects but nothing spectacular.

❑ ^ + 4350 **TRSI**
Another great demo for the Amiga. There are some great graphics in this production as well as a good little soundtrack. Nothing unusual or particularly original but indeed a very good demo. Great.

UTILITY DISKS

❑ ^ + V1523 **RELOKICK V1.41**
Howdi doodlely doooo Amiga freaks! It's ANOTHER(!) version of ReloKick.

❑ ^ + V1611 **SNOOPDOS V3.0**
will log all the dos/library calls and more when you run a program. This is handy for both the programmer and the beginner. For example; Have you ever installed a program to your harddrive and then discovered that it will not run without a certain library but you don't know which? .

❑ ^ + V1628 **STAR TREK OBJECTS**
❑ ^ + V1630 **BABYLON 5 OBJECTS**
❑ ^ + V1631 **ALIENS OBJECTS**
❑ ^ + V1637 **BABYLON 5 OBJECTS 2**
❑ ^ + V1641 **SUPER KILLERS V10.0**
Contains the latest collection of virus killers like AntiCicloVir v2.2a, Virus Checker v6.43, VirusZII v1.07, and VT v2.67, Req LHA.

❑ ^ + V1649 **REFLEX**
Interesting program. It uses an artificial intelligence system to create a personaty for your Amiga.

❑ ^ + V1659 **MSDOS 4 AMIGADOS**
A very interesting utility which should be useful to anyone who uses both PCs/Amigas. The tool allows you to create a directory on which you can store MSDOS commands & then they can be used through the shell as if they were AmigaDos.

❑ ^ ^ V1661 **(AGA) NAT/ LOTTERY**
A national lottery prediction program called Lottery Winner. It consists of a database system which can record the National Lottery results from week2week until it has sufficient data to make certain types of predictions or just a guess.

❑ ^ + V1662 **GAMES INSTALLER 2**
Contains a variety of hard disk installers for a few well known commercial games. These games are as follows: AlienBreed 2 AGA, Jungle Strike, Assassin (Special Edition), Body Blows, Goal, Ishar 2, Zool 2 AGA, Ruff and Tumble, Body Blows 2 AGA, StarDust, Super Frog, Walker, Rise of the Robots, Bubble and Squeak, ElfMania, Aladdin AGA and Motal Kombat 2. Great.

❑ ^ + V1669 **TUDE V1.0**
The Ultimate Degrader is a very extensive & easy way of degrading your machine for all sorts of purposes. It is useful for playing old game on A1200s for example which need kickstart 1.3. There is a GUI version included as well as a CLL version so most people will have no trouble using it. A highly useful tool for all Amiga owners.

❑ ^ + V1675 **BANK MANAGER V1.1**
❑ ^ + V1688 **F1GP-ED V2.04**
will work on any version of F1GP, including the A600 WWW version which was not supported in V2.03 because of a bug. F1GP-Ed allows the user to customize their copy of F1GP.

❑ ^ + V1695 **DALEK OBJECTS**
More imagine objects, sujects or headings like Dareks, Free datasets (3D objects) Imagine format.

❑ ^ + V1701 **GRAPHIC CONVERTERS**
AGAIFF16, IFF-Converter (many formats). V1.60. AMGIF, Convert IFF to GIF. APCD, Convert PhotoCD picture to IFF. ART_PRO, ART-Pro , a powerful gfx-converter. (2)

❑ ^ + V1709 **HINTS & CHEATS**
ACHEATS, Amiga game cheats by Postcard Man. AMI_CHEAT, cheats, level codes, backdoors to 453 Games. CATACOMB_MAP, A map for the brilliant game Catacomb. FRONTIERHINTS, Hints and Tricks for Frontier - Elite II. GCHEATS, Sega Genesis cheats by Postcard Man. SCHEATS, Super NES cheats by Postcard Man. VALHALLA, Walkthrough for Valhalla. WIZBALL, Little ASCII file containing level descriptions for Wizbal!.

❑ ^ * V1710 **ADDITIONAL ICONS**
Newiconsextra include: - 2 variations of drawers, each with its own theme. - SGI Folder like drawers - Filing cabinent drawers - Icons for all sorts of PD apps [like degrader, etc] - Icons for all sorts of other things [toaster, par, games, etc] - and more!

❑ ^ + V1711 **FIG**
is a menu-driven tool that allows the user to draw and manipulate objects interactively on the screen of a Sun Workstation. It can only be run within the SunWindows & requires a three-button mouse.

❑ ^ + V1712 **AIBB V6.5**
AIBB is a system performance analysis tool designed with built-in tests for exercising CPU, FPU, and graphics portions of system performance.

❑ ^ + V1714 **GEOGRAPHICAL ATLAS**
Amiglobe allows you to navigate round the world in full 3D It gives you many datas about countries and position of main towns and mountains. Unlimited zoom feature included. Requires use of LHA command and a hard drive. (2)

❑ ^ + V1718 **VIRUSWORKSHOP V4.8**
This virus-killer was programmed to help you to get rid of all the viruses hanging around. Its best and most useful virus killer program to date in my view, takes over where BootX left off.

❑ ^ + V1719 **TELETEXT-DECODER V2.3**
V2.3d (serial) of the videotext/teletext-decoder software for the HSL VideoTXT decoder. It features + load/save/print of gfx/ascii-pages, background receive/save, + international charset support + hidden chars, blinking, + setclock, + works on all Amigas

❑ ^ + V1721 **JPEG TO AGA CONVERTER**
This program converts ppm, pgm and pbm files to IFF-ILBM with support for AGA graphics modes. Binaries to support the JPEG file format are included. To convert other formats you will need the NETPBM package available on Aminet.

❑ ^ * V1722 **AMIGA TO PSION S3/A**
AmigaNCP is a implementation of the Psion link protocol which is e.g. built into the Psion S3/S3a palmtop's ROM. It's main purpose is to provide vice-versa nfs-like file access.

❑ ^ * V1723 **VIRTUAL REALITY [020]**
This program allows you to walk, drive and fly around in a 3 dimensional computer generated world in realtime. It is used to visualize architectural, industrial and artistic designs for presentation or analysis purposes.

❑ ^ + V1724 **ZX-SPECTRUM EMU V4.71**
Is the first release of this emulator, earlier versions were demo versions and were not released by the author !!! This emulator enables you to run almost any program that runs on a ZX-Spectrum.

❑ ^ * V1745 **TERM V4.2 [030]**
The latest version of this very well known comms terminal program. Version 4 has even more features and although it is not for beginners it is probably the best available. Very good.

❑ ^ * V1747 **MAGIC-BACKGROUNDS & MAGICWB ICONS**
This package is a patch to MagicWB, the 8 bitplanes XEN-Icons have been converted to 3 bitplanes icons wich will take less CHIP RAM in your system. This is the fourth release of my Magic-Background-Collection with ten (not nine nor eleven $-) brandnew backgrounds for your lovely Magic-Workbench. This time you will get some 'winter-pictures' whith ice and snow 8!

❑ ^ + V1751 **PRINTER DRIVERS**
CANON600 v2.0 - EPSON FX-850 v1.0 & LX-800 - HP4DRIVER v35.8 - HP4LSETTER v2.01

❑ ^ + V1754 **FERN GULLY COLOURING**
Select your background, choose a character then you can colour the picture in using your mouse.

❑ ^ + V1755 **BARNEY MEETS SANTA (AB)**
Digitised voice which narrates the story & explains what you must do in the various games & puzzles.

❑ ^ + V1757 **ROCK-A-DOODLE COLOUR**
Select a background, choose a character to paste on top, before colouring the whole picture in.

❑ ^ + V1758 **SENIOR QUIZ - FIRST AID**
Many many questions and answers about first aid. So if you're a budding paramedic then you can hold a quiz night with this disk.

❑ ^ + V1759 **JOES TYPING TUTOR (AB)**
The actual typing lessons are quite good & once you start typing there are many different lessons.

❑ ^ + V1761 **KIDS DISK 6**
A game which allows the user to run a shop. They have to fill out the reciepts for each order & give correct change etc.

❑ ^ + V1762 **A WITCHES COOKBOOK**
Magazine which contains many recipies for herbal remedies. Various substances such as antiaging cream, tinctures, oils and other ointments.

❑ ^ + V1763 **RECIPE/RECORD**
This is a program for the recording of recipies and the like. You can use this system to create a database of different meals, foods or even wines. Simple to use and hard disk installable. Good.

❑ ^ + V1765 **SHIP'S COMPUTER LIBRARY**
One for those trekies out there. is a simulation of the computer you might find on board the Starship Enterprise. You can look up allsorts of information about the federation fleet etc.. Very good. (3)

❑ ^ + V1768 **SET UP PROCEDURES**
If you don't know how to create your own self booting disk then get this. Included is a text file detailing the set up procedures which need to be undertaken to create a self booting disk.

❑ ^ + V1769 **PREDICTION TOOLS**
There are four tools included on this disk. Amiga Punter is a program which will try to help you predict the out come of horse races.

❑ ^ + V1771 **COURSE FORM**
Like to put a bit of money on the horses? This utility allows you to enter the figures for the horses in a particular race, plus the course details.

❑ ^ + V1774 **TELEPHONE BOOK v3.1**
This is a very simple but effective program which will store phone numbers and also there corresponding names and addresses. Easy to use.

❑ ^ + V1778 **LOTTERY CHECKER**
is a great tool for checking lottery numbers. Good for office syndicates. Find 'A' Date is a database which stores & matches people up for blind dates. Sneaker is used to view/change binary files.

❑ ^ ^ V1779 **DIY REKO**
Do It Yourself Reko is an ImageFX arexx macro which makes Reko cardsets (for Klondike AGA) virtualy automatically, saving you lots work.

❑ ^ + V1783 **LIGHTROM 1+2 EXAMPLES**
❑ ^ + V1784 **STARTECK GENIES V1.0**
Seven must have genies for anyone with Professional Draw. The genies are PieCharts, Stars, Emboss/ Engrave, ScalePercent, ZoomWindow, SelectByAttribute and GridSet. Well documented.

❑ ^ * V1785 **TOOLS & MENUS**
CATCHDISK v1.20 - A simple commodity for auto-formating bad/unformatted disks. CHKSUM v1.0, ToolsDaemon v2.1a - Allows you to run programs simply by selecting a menu item from the menu strip of Workbench 2.0. WindowDaemon v1.9 - gives extended control to intuition windows and screens through HotKeys and Arexx.

❑ ^ * V1786 **MAGICMENU V1.29**
Replaces all Intuition menus, supporting both pull-down and pop-up menus. Menus can be displayed in either the Standard look, or the modern AmigaOS 2.0 style 3D-Look.

❑ ^ + V1787 **ATTRIBUTES V2.0**
Contains a full disk of attributes

❑ ^ + V1788 **LENSFLARE OBJECTS**
This is the staging file to render an animation showing an lens flare that move with the light source. objects,brushes and explanations included.

❑ ^ * V1789 **COMMUNICATIONS (ABCDE)**
AmiTCP v3.0, Terminus v2.0d, Source/Developer Kit for AmiTCP v4.0, AmiTCP/IP 4.0. AmiTCP/IP, FTPDaemon v2.0.

❑ ^ + V1794 **AVMNFAX V1.33 (AB)**
This fax program can be used with Class 1 and Class 2 fax modems. (2)

❑ ^ * V1796 **MAGICUSERINTERFACE v2.3**
MUI is an object oriented system to create and maintain graphical user interfaces. (2)

❑ ^ + V1798 **TURBO MODULA-2 v1.40 (AB)**
Compiler is commercial quality: its fast, generates small & fast code, doesn't eat too much memory & the error reports are normally very accurate.

❑ ^ + V1800 **AMINET CDROM DETAILS**
The complete Aminet on 4 new CDs, desc and index, also includes aminet 5 listings.

❑ ^ * V1801 **VIRTUAL WORLDS V1.017**
is a new adventure creation system which allows users to easily create large text & grx adventures.

❑ ^ + V1802 **TEXTURE GUIDE CREATOR**
This File will convert your Original texture.txt & litetex.txt files that comes with Imagine 3.0 into an Easy to use Amiga Guide File.

❑ ^ + V1803 **ADPRO FRONT-END V2.4**
fixes several bugs in 2.3, as well as adding several new screen modes & picture layouts.

❑ ^ ^ V1804 **IMAGEDESK V1.2 (AB)**
a program to catalog picture directories. By this small representants of the pictures, so called thumbnails are being generated & internally expanded to objects which will include all essential attributes

❑ ^ * V1806 **MAGIC SELECTOR V1.60**
is a program who select different background & SoundFX in Workbench each time you are booting up you Amiga. Some Patterns/Sounds are included.

❑ ^ ^ V1807 **SPECTRUM EMULATOR V1.6B**
This program is a Sinclair ZX Spectrum 48k emulator. It needs WB 3.0+, 68020+ and AGA chipset (68020+, WB 2.04+ and any kind of chipset for the OCS/ECS version).

❑ ^ * V1808 **ROMAN'S MAGIC WB ICONS 7**
New, high quality, standard size, MagicWB2.0-style Icons/ImageDrawers and other MWB-stuff. RomIcons7 is Cardware. (2)

❑ ^ * V1811 **IMAGESTUDIO v2.0 (AB)**
is written for the casual graphics user who wishes to convert or manipulate various graphics formats on a modest Amiga system.

❑ ^ + V1816 **DOPUS MAGIC COMPANION**
Loads of extras for use with Diectory opus program. Arexx files, Utilities and loads more!

❑ ^ + V1818 **EASY DMS**
DMS used by most cdrom systems for storging disks is now easy to use with the excellent system.

❑ ^ * V1819 **MAGIC WB EXTRAS 5**
Another selection of the finest programs, icons etc for use with The Magic Workbench system (2)

❑ ^ + V1821 **MSX EMULATOR V1.2**
This package includes three flavours of a MSX emulator, MSX 64kb, MSX 256kb and MSX-2. This package is an unregistered shareware program.

❑ ^ + V1822 **PATCHES**
68030 Patches for FinalWriter 3.0 This patch speeds up FinalWriter 3.0 on all 68020/30/40 machines, things like font rendering and internal arithmetic will be up to 400% faster!. SAS/C V6.55 bug fix for Amiga SAS/C 6.50 and SAS/C 6.51

❑ ^ + V1823 **BAUD BANDIT BULLETIN BOARD SYSTEM V8.4**
Up to 99 file libraries with extended filenotes. Up to 99 fully threaded message conferences. Number of users, files, messages, etc. are only limite storage space. Controlled file library and me conference access for users & sysops. Interfa extra devices like CD-ROM & others, all treat Read-Only. Complete Email area including b mail, and multiple forwarding.

❑ ^ + V1824 **DUST TUTOR (ABC)**
Tutorial to help you to become familiar with Contains many small animations and a guide-f english.

❑ ^ + V1827 **EGS PHOTO ALBUM**
Picture management and presentation softwar EGS. Offers access to large collections of pi and animation files. Supports DataTypes!

❑ ^ + V1828 **FAST IMAGEFX LOADER**
This is a very fast universal loader module ImageFX and ImageFX-EGS.

❑ ^ + V1829 **IMAGEFX 2.0 DEV KIT**
Developers kit will allow most amiga program to develop modules for nearly any part of ImageFX 2.0 system.

❑ ^ + V1830 **IMAGE DESK V1.3**
Program to catalog picture files by crea 'thumbnails'

❑ ^ + V1831 **IMAGINE 3.X OBJECT OF U ENTERPRISE**
This object can be rendered w/ Imagine 3.x Very nice Rendering of the USS Enterprise.

❑ ^ + V1832 **80 QUESTIONS**
This is an educational study aide. It allows yo create a 'flashcard' type test to study by.

❑ ^ + V1833 **ARCTANGENT'S BACKDRO S/U PIX VOL 3**
collection of backdrops and startup pics for Amiga. Vol 3!

❑ ^ + V1834 **MAGICWB PALETTE & FOXXICONS**
Darker version of MagicWB palettes 35 to Pretty Magic WorkBench icons for Sound and M

❑ ^ + V1835 **NETBSD-FAQ**
NetBSD-Amiga is a full-fledged unix opera system for the Amiga.It is a combined effort of u in many countries Is freely redistributable,an constantlyimproving.You need MMU in your Ar to run NetBSD-Amiga.Amiga users who are fee increasingly isolated can now jump on the bandwagon and still keep their Amigas.

❑ ^ * V1836 **MRBACKUP V2.1.4**
is a hard disk backup program for the Commo Amiga family of computers. It provides a range of services to support Amiga file manager and backup/restore of files to/from hard disk.

❑ ^ + V1837 **DISK DOUBLING V1.9B**
This package allows you to create virtual partit pn your HD. Files stored in such partitions automatically compressed and decompres whenever you access them, in a transparent w

❑ ^ * V1838 **VMM V3.0**
VMM Implements a virtual memory manager Amigas with a 68040,68030 or 68020+68 processor. A localized user interface to ente parameters and to disable certain tasks and files from using Virtual memory is also provided the user interface MUI 2.3 is needed.V3.0 inclu the ability to swap out program code,mem tracking,better MMU support, an Arexx port some other new features.

❑ ^ * V1839 **MAGIC WORKBENCH 1.2P**
A superb utility! Magic Workbench comple wipes over all those horrible workbench ico replacing them with its own versions. It also a patterns and changes your workbench fonts. The result is a much more attractive workbench. E and safe to install. Looks great!

SPECIAL NOTE

All the disks BETWEEN V1501 to v1750 and d 4001 to 4300 are included on the Hottest 5 CDR (See the other page of this advert for more deta Higher numbers will apear on Hottest 6 coming o the next 3-4 months.

CODES & SYMBOLS

- (+) .... Workbench 1.3x and higher
- (*) .... Workbench 2.0x and higher
- (^^) .... Workbench 3.0x and higher
- (^) .... Works on WB3 & ab
- (!) .... Not Workbench
- (-) .... Not Workbench
- (?Mb) .... Req ?Mb amount memory to run (2
- (?) .... There's ? disks in set or (AB
- (K) .... Requires disk V1523 KICK to
- (>) .... NOT! on an A

)112 AMINET QUAD PACK £27.99

107 AMINET5 £14.99

IK Number 1 Stockest

The Aminet CDROM Range

Aminet is worlds largest collection of freely distributable Amiga software. Up to 10,000 users access the vast archives every day, and countless programmers publish directly via the Aminet. Only 3 years after its inception Aminet now holds the equivalent of more than 4,000 floppy disks of software! Untill recently access to Aminet was restricted to international network users. With AMINET SET1, consisting of 4 CDs, the complete archive is published for the 1sttime. Aminet Set 1 dated 1st of January 1995, consists of approximately 4 gigabytes of software in 12,500 archives. Whether you like applications, games, utilities, networking software or programming languages, the Aminet CD offers an almost inexhaustible reservoir of top value FD software, Improved user friendly access software make the set a pleasure to use.

CODE	DESCRIPTION	PRICE
CD016	AMINET 2	£7.99
CD016	AMINET 3	£7.99
CD016	AMINET 4	£7.99
CD112	AMINET_1, 2, 3& 4	£27.99
CD107	AMINET_5	£14.99
*CD150	AMINET_6 (JULY95)	£14.99
SUB1#	SUBSCRIPTION	£12.99

Get your CD's on the day of release, preorder them with this subscription service, credit card or SWITCH cards charged on day of release.

Aminet 5 - dated March 1995, consists of approximately 1.1 gigabytes of software in 3600 archives. Since the release of Aminet CD 4 more than 448 MB new software has appeared since the release of the Aminet Set 1 214Mb of new software has appeared. The current edition has a special focus on games, more that 1000 games from Aminet were included. User friendly access software.

CD053 *The Professional IFF / PCX Clipart 2 £19.99

Comes in both IFF and PCX formats to cover both PC & Amiga users. includes such categories as animals, boys, cultur-al images, floral and natural images, girls, holiday images, literary figures, mythological images, scenery, transportation, and work images. The disc contains drawings of bears, cats, dinosaurs, dogs, insects, and horses. Cultural images from Egypt, Japan, Native Americans, Polynesia, and Persia are also included on the disc. Floral and natural images include blossoms, planets, sky, the sun, trees, and weather. Comes complete with a 250 page book with most of the images printed. Other sections on the cdrom are Walpaper backgrounds for Windows & Workbench v2.0+, Grx utilities, viewers and converters, Icons and loads of Magic Workbench software.

Includes a 250+ BOOK

CD101 *THE SOUND LIBRARY £19.99

Over 1,000 Megabytes of the best quality Public Domain / Shareware software for Amiga and PC computers. Its the most comprehensive collection of sound related software and musical data to date.
The Sound Library includes: MIDI files in various formats (MDI, MDI, MIM) Hundreds of Megabytes of excellent music to listen too, (or change/edit them to insert them into your own applications), over 5,000 MODULES or MODS, Over 1,000 VOC files, Over 1,000 WAV files, Over 1,000 Samples and hundreds of ready to run music related software titles, converts, sequencers, Applications, drivers, Information, Players. AMIGA ONLY: latest versions of Sound Tracker, Pro Tracker, MED, Noise Tracker, EdPlayer, Rippers, Samplers, Sound Effects Pro Wizard converters and some mach more. PC ONLY: latest version of Whoop-it for windows, Drum Blaster, Tetra sequencer, Blaster Master, Windows sound utilities, Trak Blaster, Accu Music-system, Multi Media Jukebox, Cinema, MOD4Win, Music Sculptor, Surfs UP, PC Drummer, and much, more!.

DOUBLE CDROM

CD141 THE LIGHT WORKS £39.99

racing - a fascinating area of the computer graphics. ures from the computer, perfectly rendered fascinates le all over the world. A real artist of raytracing is as J. Richter from Germany, whose detailed objects ho use them. Especially his space ships of famous ice fiction films are used to demonstrate the capabilities raytracing program. Until now it was difficult to uire these objects in order to create your own scenes imations. THE LIGHT WORKS CDROM contains mainly objects created obias J. Richter, together with surface textures, ready to use in Cinema4D, ections and Imagine. But also for those who don't know that much about acing, there is some material on the CDROM: more than 100 rendered ires and several animations demonstrate, what is possible with these cts. If you want to play around with the objects, you can use the demo ions of Maxon Cinema4D and Reflections on disk. These are versions with functions disabled. Also a huge amount of PD pictures and animations.

CD144 R.H.S COLOUR COLLECTION £19.99

An excellent collection of colour fonts, colour clipart with directory headings like Astro, Cartoons, Computers, Dinos, Fantasy, Flight, Girls, Kids, Nature, Sport, Fish, Boats etc. The Canny Font selection, Deko font library, The Farb-bilder picture slide show selection, The Profi-Bilder Pack and loads, loads, more. The fonts shown are obly a small selection of the fonts to bw found on the disc and just wait to see you see the colour clipart. A colour printers dream is to be found.

CD061 PRO UTILITIES V1-V1500 £19.99

Contains all of our Various disks From Number 1 upto 1500. Sujects covered like Sound Samples, Instruments, Modules, pictures & Clip art mono, colour, Educational, Business utility disk, Graphics & Music production, HD utils, Workbench utilites, comms, Virus killers, Video produ, Emulators, Hobbies, Programming, fractals, Printer utilities, Satabases, game related , sound related software, Animation , home and prediction, hard drive software, cd rom related, Med and Octamed, Design work, Amos, demo makers, Cheats disks, vector objects, degragers & kick ults, Art disks, CAD, compresion software etc. Workbench ready cdrom.

CD091 *POV-RAY £19.99

Create 3D Graphics like this! No artistic ability required!. The Official POV-Ray CDROM is a compilation of images, scene source, programs, utilities & tips on POV-Ray & 3D



graphics from the Internet and CompuServe. Unlike some other raytrace compilations this one is aimed fairly and squarely at those, who want to create their VERY OWN images.

)69SPECCYSENSATIONS

.99

your old ourites.. st, School , Jet Set y, Atic ,Galaxians, r raid, rek, Uridium, Under Wurlde, de-rdash, Manic Miner, Jetpack, inel, Barbarian, Hunchback, o Olympics, Dan Dare, Monty , Danger Mouse, Hungry Horace, Hobbit, Snooker, Poker & over more titles. Includes Emulators

CD011 SOURCE CODE £19.99

The Source Code CDROM is broken down into 5 separate categories. The first is the Usenet archive. This section contains 213 MB, almost 73,000 files, including the net.sources archive and the comp.sources archives for 3B1, misc, games, reviewed, X and Unix. Most of this code is in C.

CD028 PROFESSIONAL FONTS & CLIPART £9.99

How about every single font we have ever produced! over 4,000 Adobe type 1 font files, 1,500 True Type Fonts, Prodraw Fonts, IFF Mono/Colour fonts, Pro Page II Fonts, Page Setter II Fonts, Also a wide selection of clipart Over 5,000 PCX files, 300 GIF Pics, 1,000 .EPS Format, & 2,379 TIFF files. idea DTP Users.

Low Price **Special Offer**

CD012 PROJECT GUTENBERG £19.99

literature such as Aesop's Fables, Alice in Wonder-land, Moby Dick, & Paradise Lost historical docs such as the Magna Carta, USDeclaration of Independence, Constitution, & Inaugural Addresses; references such as Roget's Thesaurus, almanacs, census data, CIA World Fact Book,and mathematical constants; religious documents such as the Bible, & the Book of Mormon.

CD049 C USERS GROUP £19.99

Contains disk utilities, sceen savers, drivers for keyboards, print-ers, monitors, etc. invaluable to any Windows user. Customize envir-onments. For entertainment, it includes hundreds of games from arcade style to board games. Also are demos of commercial programs & Programmers will appreciate the source code & programming tools for C, C++, Turbo Pascal, & Visual Basic.

CD056 BEER GUIDE £19.99

The Beer Home Brewing Guide is a complete refer-ence & tutorial on brewing beer at home. Wheth-er your favorite is a golden larger, an oatmeal stout or a HefeWeitz-en, this CD will show you how to do it, step-by-step from start to finish. Whether you're an experienced home brewer or just starting, you'll love the BEER Homebrewing Guide. Huge collection of recipes.

CD013 FRACTAL FRENZY £19.99

All images on the disc are categor-ized by fractal type, including Mandelbrot, Z e x p e , Barnsley, describe each fractal image & the formula used to compute it. You get each image in both very high resolution & in low resolution versions. . Mr. Skinner's methodical study of fractals has resulted in as many as 494 imags from a single ancestor. All these images are included on the disc.

CD046 SETIMENTAL WINGS £19.99

You'll see pictures of such classics as the P-51 Mustang, P-40 Warhawk, the F-1xx series, including the F-100, the F-101, F-102, F-105 and F-106, the once secret SR-71 Blackbird, U-2 Spyplanes, B-47s, B-52s, the B-58 Hustler, the mighty Phontom F-4s, and many others. You get all images in GIF, TIFF, JPEG and BMP formats for multi-system compatibilty. Macintosh, MSDOS and Amiga.

)47 TRAVEL ADVENTURE

.99

llection of os from nd the d. Contains first-rate ction of l photos of JS, Ireland, Austria, Germany, bean Islands, other subjects like ning Mountains, Gorgeous hes, coves, and surf A dazzling of cities and loads more the es come in a variety of sizes & ats (1024x768 24 bit TIF, x768 GIF, 640x 380 8-bit GIF).

CD063 VISIONS £19.99

is a collection of 500 great photos from the Preferred Stock photo archives. All images are ROYALTY-FREE & come in GIF 640x 480 & 800x600 resolutions. You can do anything you want with these photos as long as you don't publish them as a compilation of images on a CD.

CD058 GOLD FISH VOLUME 2 FRED FISH £29.99

An excellent selection of the best software, anims, pictures, games & other material, released on freshfish CD's between Oct/93 and Nov/94, with most of the meterial updated to the latest available versions. All of the meterial is included in both arcived (BBS-ready) and unarchived (ready-to-run) forms.

CD010 GOLD FISH VOLUME 1 FRED FISH £29.99

fred Fish has been working to supply the Amiga community with high-quality, freely distributable software for the Amiga since the introduction in 1985. Contains the offical archive of the 1000 floppy library created by Fred Fish between January of 1986 to April 1994. See Gold fish 2 for the second in the series and coming soon.

CD026 LOCK & LOAD £14.99 *CD092 LOCK & LOAD 2 £19.99

An Amiga PD/ games compilation, Nearly 1,000 Games ready to run on CD32, CDTV A570, and any external SCSI CDROM. Includes: Assassins Games 1-148 ready to run (keyboard need for CD32/CDTV users). and several hundread other games.

Low Price **Special Offer**

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Features more than 500 super games that can be ran directly from the cdrom, CD32, or CDTV. Only the best section of stunning games are provided for your use on this cdrom. There are many subjects to select from like Action, Adventure, Jun & Jump, strategy etc.

New Price **Special Offer**

CD044 SOUNDS TERRIFFIC £19.99

Containing over 1.2 Gig of sounds & data. It all adds to the best collection of sounds on any platform and will form vital part of any musicians CD collection. Contains 4,600 Modules, 14,000 Samples, 568 Sonix Scorces & 4500 Instruments, 302 octaMED/MED Modules, 1190 Midi files, 1552 VOC & 642 WAV Samples, & Utilities.

Double CD

CD071 ULTRA MEDIA 1&2 £29.99

The first real ultimate Amiga MultiMedia CDROM!, Megabytes of images, textures, sounds, animations, IFF pictures, GIFs, WAVs and FLICs.. Includes a multimedia tool to take advanage of the PC WAV format files (this is the first time included on Amiga CDROM). This cdrom pack will keep anyone glued to your computer screen for hours.

Double CD

)33 THE AMOS LIBRARY

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RD ENCE

patible with MIGA's

offical Amos PD Library is the st source of code and programs ring Games, utilities, Samples, res, Sprites, Music, Mega Mega all written with the language s.

ew Price **Special Offer**

CD034 ASSASSINS GAMES WIERD SCIENCE £19.99

650 + Games for the CD32, CDTV & Amiga CD. Ready to run from a simple menu system. 100% CD32 compatible. Also includes Assassins floppy disks 1 to 200 archived easily copied to floppy. Workbench, Parnet & Sernet included.

CD143 TERRA SOUND LIBRARY (CYBERLAND) £19.99

Contains some exclusive and absolutly NEW sounds for you cdrom drive, with the following software headings, 259 directories and over 7800 files. - 32Mb of Demos, 10Mb of Midi Files, 275Mb of Modules (Amos, .EXE, Med, S3M, MOD...), 13Mb of Players and Composers, 265Mb of samples.

New Release

CD145 3D ARENA £19.99

Imagine, Lightwave and Real-3d. The Lightwave collection from 24Bit club Scot-land.Exclusivity for this CD. You will also find dedicated animations for Retina and Opal Vision cards, a selection of EGS utilities and rended textures in a variety of formats. The 3d Arena is one of the better produced cdroms with some very tasty textures and objects. **Amiga Format 94%**

Special Price **New Release**

CD098 ANIMATIONS £19.99

Contains 100s of animations ready for viewing direct from CD. Formats support-ed IFF, Movie player, FLI, PLC & Deluxe Video. Viewers for the Amiga and PC. View on ECS and AGA Amiga. See how the experts use the best animation tools on both Amiga and PC. Certain to provide many hours of fun & enterainment for all. The truly talented animators featured here provide their work for all to enjoy.

CD111 DEMO MANIA £19.99

The Demo Mania CDROM is the best collection of Mega Demos to date, it contains a excellent menu system with one of the best collections of AGA & Normal Amiga Mega Demos. Conatins a stunning amount of Euro Demos, Magazines, AGA Mega Demos. Contains Mega Demos from all the major Demo Making groups for the Amiga.

CD110 GAMES DELIGHT £24.99

Contains 40 games for the Amiga from differing catego-ries. Action, jump & Run, Card Games, Puzzles, Strategy Games. A whole range of entertainment awaits!. Gamers Delight will hold you captivated for hours and guarantees long lasting pleasure. All the games are commercial versions - NO PUBLIC DOMAIN & NO DEMOS!. Works with all CDTVs, Amigas or CD32.

CD109 GIGANTIC GAMES £19.99

Over 900 of the best top amiga Public domain and shareware games on one cdrom the amiga have been collected together along with some excellent and stunning titles that now apear on this cdrom. With so many titles it will take you months to wade through and years to play. If games are your thing give this cdrom a go and save over 600Mb of hard drive space at the same time.

108 THE BEAUTY OF AOS

.99

CD which be used on us systems. 07 mandel- -Pictures various tions, (1140 x890, 1024x768, 480 and 64x48). They all use colours. In addition to this the most beautiful fractals are saved e colour graphics in TIF format. ga, PC and Mac viewers etc are des on the

! New Release !

CD062 LSD TOOLS £17.99

Most PD Compilations contain the usual mix of games, utilties & other associated files.

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● **Amiga** 3000, 10Mb RAM, 185Mb hard disks, WB 1.3/2.04, 2 880Kb &1 1,76Mb floppy drives, under warranty until 06/96, various software £900. Phone Matt Wells ☎ 01793 825751.

● **GoldenGate** 386SX 25MHz emulator for Amiga 2/3/4000, 8Mb RAM, maths co-processor, 34Mb hard disk,1Mb SVGA card, 12" monitor, MS-DOS V6.22 plus Windows V3.1 £550. Call Matt Wells ☎ 01793 825751.

● **GVP** HC8+ Series II SCSI hard disk controller and RAM card for Amiga 2/3/4000, £85. Trilogic sound sampler including software and leads, £30. Phone Matt Wells ☎ 01793 825751.

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● **A1200**, GVP 40MHz 68030, 6Mb RAM, 170Mb HD, Overdrive, CD-ROM, monitor and software. Offers around £1,000. May separate. A. French, 874 Woodborough Road, Mapperley, Nottingham. NG3 5QQ.

● **Genlock** – GVP G-Lock, half price, £145. Computer stereo speakers, Screen Beat Three, never used – £10. Various Commodore/Amiga handbooks and software – ring for info. Plymouth ☎ 01752 551850.

● **Microway** Flicker Fixer for A1500/A2000/A3000/A4000 complete with manual and software, £85. Also A500/A1200 PSU, £15. SAS/Lattice C v5.1, £40. Call Ian ☎ 01727 868800.

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● **WB** 1.3 ROM, 512K RAM expansion. £10 each. Wordworth V2,£18. All ono. ☎ 01463 791641. Ask for Robin (after 6pm).

● **Amiga** 500 1Mb RAM 385. 2Mb external RAM, £75. Videomaster digitiser, £55. Colourmaster RGB Splitter, £55. All boxed with manuals and software. All for £250. Telephone Paul ☎ 0121 628 8487.

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● **A1200** with Blizzard 1200/4 memory board. Philips CM8833-2 monitor. External 3.5" disc drive. Many boxed games. AMOS, Easy AMOS, Professional AMOS. Magazines, discs, £550 ono. Will split. Call Mick ☎ 01256 702546.

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● **Amiga** A4000/030 170M HD, 6Mb RAM, double speed CD, two floppies, Microvitec multisync monitor c/w sound enhancer, Digi View Gold, Technosound Turbo and software, £1,100. Call Andy ☎ 01642 827179.

● **CD^{32}/Amiga** games for sale, e.g. Theme Park £14, Bubba N Stix £7. All in excellent condition. Send SAE for list to Justin Castle, 'Tremorran', Upper Torrs, Ilfracombe, Devon, EX34 8AZ.

● **Hawk** Trapdoor expansion memory board for A1200 with 4Mb Fast RAM and 40MHz FPU fitted. On-board battery-backed clock. £200. ☎ 01978 760940 (N Wales) (after 6pm).

● **Amiga** 68040 CPU upgrade board for A4000 and A3000. Built-in FPU and MMU. Will sell for £350. Phone Ray on ☎ 01987 263325, after 5pm.

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● **Amiga** 600 1Mb Commodore 1084ST colour monitor. Boxed, manuals, mouse, joystick, Workbench, Photon, Paint, Basic 3.5, DPaint 3, many games. Excellent condition £350 ono. Phil (Dorking) ☎ 01306 885172.

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● **Software** collection must go. Entire Amiga games collection for sale. Write with SAE to: Elliott, 35 Harness Close, Wimborne, Dorset, BH21 2UF.

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● **GVP** A4008 SCSI controller for HD CD-ROM etc. Can be populated to 8Mb RAM. Ideal for A4000. Boxed complete, as new £75. Call Darren ☎ 01689 856470 (Kent).

● **4Mb** SIMM £80, Power Scanner £40, Imagine 2.9 £40. Or all for £150, or swap for Power CD-ROM. Phone Johnny in Room 7 on

▶ 54

53 ☎ 01484 513157 after 6.00pm.

● **A1200**, 85Mb HD, 4Mb RAM, incl software, two W/P programs, disks, joystick, new Microvitec autoscan colour monitor, Seikosha SL96 colour printer. £700 excl. postage. ☎ 01736 64092 – Penzance.

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● **Amiga** 2000 hard disk plus 3" + 5" disc drive colour monitor 10845, Siekosha ET200 printer plus manuals, Deluxe Paint 3, Pen Pal, joysticks etc, £400. ☎ 0181 977 2410.

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● **Viper**-1 28MHz, 33MHz FPV and 4Mb Fast RAM £220. Also six 60-capacity lockable, stackable disk drawers, £7 each, £30 all six. Phone Rich before 5pm ☎ 0114 269 0421 (Sheffield).

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● **A4000/030**, 4Mb Fast, 170HD, Dataflyer SCSI board, 1960 Multisync monitor, Miracle piano, Case 9600 modem, Pro-MIDI Interface, Technosound Turbo 2, D Music, Wordworth, loadsagames, books. Bargain £1,200 the lot. Bob ☎ 01273 722851.

● **Amiga** 1500, 68020 plus 68881 Co-pro, 2Mb Chip, 8Mb Fast, 105Mb HD high density floppy. WB 3.1, 10845 monitor. DPaint 3, SealaPro, Wordworth 2, Final Writer 2, Directory Opus, manuals. £750 ono. Phone Jim ☎ 0181 4277853.

● **A500** motherboard Rev 6A complete with chips £30. Can split for chips. A500 keyboard £20. Offers considered. Call Dave ☎ 01785 660451.

Personal

● **Amiga** artist available for any work. (PD, S/W, Commercial). Can do any graphics you want. Write to: Stuart, 32 Osprey Park, Thornbury, Bristol, BS12 1LX. Now!

● **Wanted**, AMOS prgrammer for projects. If you want to create games or utils, I am looking for a co-partner. Call ☎ 0181 980 3255 or ☎ 01956 345201, leave messsage.

● **Amiga** Buzz BBS is now back online. Now v. fast, dual standard. Call now! ☎ 01924 491461. SysOp Chrono 24 hrs. LYA soon.

● **Graphic** artist wanted by experienced PD/licenceware games programmer. Must be 100 per cent committed. Write to: 4 Katherine Street, Millom, Cumbria LA18 4AQ.

● **Serious** Amiga musician looking for contacts and work. Anything considered. Contact Rob Bowden, 5 Prospect Terr, Woodhill, Bury, BL8 1BB, or phone ☎ 0161 763 3905 after 6pm.

● **PD** swappers and contacts wanted, especially AMOS. I have 3Gb of PD and loads of AMOS code. Write to A Draper, 23 Crouch Park, Pooles Lane, Hullbridge, Essex, SS5 6PX, UK.

Wanted

● **SIMMS**, 1Mb wanted. 72-pin 32-bit only. Any A4000 owners upgraded? Old SIMMS doing nothing in your draw? Phone me on ☎ 01635 866669 after 7pm and earn some extra cash!

● **A4000** 200Mb + H/drive, working or not. Also 8Mb single sided SIMMS 72-pin 70 NNS or faster ☎ 01208 74408.

● **A500** accelerator/hard drive wanted for A500+. Must be in immaculate condition. Call Gen on ☎ 01263 513838. Please phone between 2.30pm and 4.00pm, or after 9.00pm (Norfolk).

● **Amiga 3000** any config, prefer machine 2.5 years old or under, older machines considered. Good price paid for good condition A3000. Urgent. Please contact Saleem on ☎ 0141 337 2792.

● **A4000/40** with 6Mb or greater 200Mb hard drive or larger. Also any extras (CD-ROM, graphics boards). Phone ☎ 01463 791641 after 6pm. Ask for Robin.

● **040 accelerators**. Either GVPG-Force or Zeus 040 with SCS1 Interface,4Mb RAM and hard disk. Will pay up to £500. Graphic cards with built-in blitters, pay up to £250. Colin ☎ 01482 844388.

● **CU Amiga** Feb '95 needed for user group here in the States. Please share with American Amiga users as this issue did not make it here to the States. Thanks T.O.G.A. 165 Blossom Hill Road,#157 San Jose, California 951Z3, USA.

● **Imagine 3** and LightWave users – I want to contact anyone who uses the above. I run an Imagine user group and need contributors. Interested? Phone Spencer on ☎ 01375 670036.

● **I need** Amiga Workbench 2.1 (including extras, fonts, disks etc). Will swap for Amiga utils, games, PD etc. Chris Jackman, 3 Albion Terrace, Lexham Road, Litcham, Kings Lynn, Norfolk. PE32 2QQ.

● **Contacts** wanted – special affection for AMOS but anyone welcome from beginner to expert on any subject, Amiga or otherwise. Write to Alan, 23 Crouch Park, Pooles Lane, Hullbridge, Essex. SS5 6PX.

● **Opalvision** 24-bit graphics board for Amiga 2000. Will collect in England or Wales. ☎ 01902 683158.

● **I would** like to talk to someone who has an Emplant running on a 4000/30. ☎ 01257 482266.

● **Pro** Page 4.1 at a reasonable price. Phone Chris on ☎ 01823 322876.

● **Wanted:** Blizzard III 50MHz with FPU and 4/8Mb for A1200 will pay £200. Also wanted, Real 352 for £100. Call Ashley on ☎ 01654 710620.

● **Complete** Amiga C by Cliff Ramshaw. Must be in good condition with registered DICE disk and Commodore includes. Will pay £20. Phone Matt on ☎ 01472 601973.

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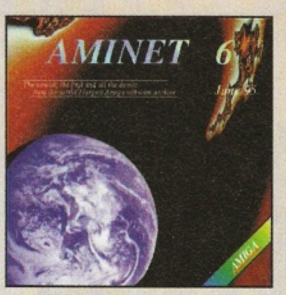
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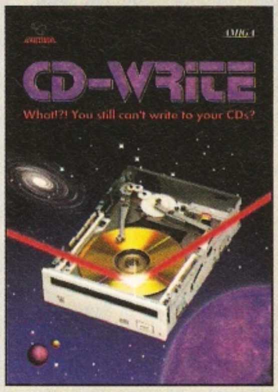
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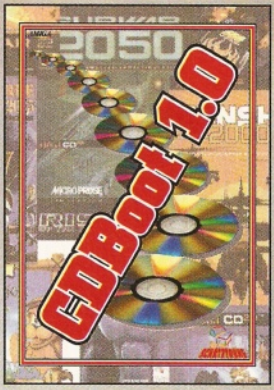
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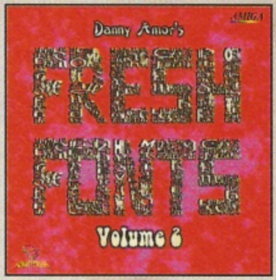
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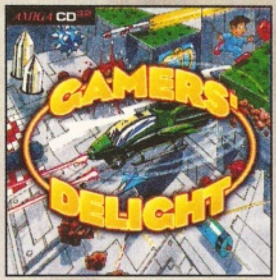
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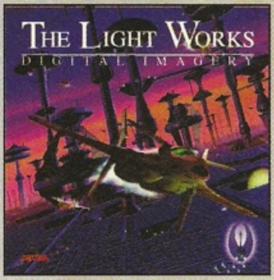
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This month's winner is Mike Docherty. This picture was created with Imagine on an A1200 with 8Mb RAM on a Microbotics 50Mhz 030 accelerator. Rendering required three hours and a further 7Mb of virtual memory. If you want to win £25, render or draw a picture, save it as a JPEG and send it to: **David Taylor, Future Publishing, 30 Monmouth St, Bath BA1 2BW.**



Hello there. I am David Taylor and this is where I get to tell you a little bit about this month's Amiga Answers. As ever, it's packed with answers to your problems and topped off with some hints and tips to help you solve those annoying problems that inevitably crop up now and then.

I'd also like to point out I intended to get my hair cut before I was immortalised in red and yellow, but I was too busy, er, cramming all the stuff on to the Coverdisks for you. Honest!



Paul Overaa is our Operating Systems programming expert. He has written several books, including: Mastering Amiga Assembler, Mastering Amiga ARexx and Mastering Amiga C. His main interest is in program-design and he is heavily into the music-side of the Amiga. Paul's other interests are red wine, maths and wind-surfing!



Gary Whiteley is our expert on video and graphics. He regularly produces work for films and TV. Gary has also written books – amongst them is Amiga Desktop Video, published by Future Publishing. Gary also regularly reviews new products for Amiga Shopper – if you turn to page 36, you'll find out what he thinks about Scala MM400.



Toby Simpson is our code clinician. He writes our DICE and Assembly tutorials. He has written several books, including ARexx: Your Built-in Turbocharger, published by Future. Toby's day job is working for Millenium Software, programming their games, which just goes to show that he knows a thing or two about his subject!



Larry Hickmott is our DTP and word processing expert. He produces his own DTP magazine called Em and has written several books on his favourite topic. He has just finished a book called the Wordworth Companion for Digita and Future Publishing's books division. He has written our huge Supertest of scanners this month (see page 22).

AMIGA ANSWERS

Merging files in Superbase

Help
General

On my Amiga 500, I used Superbase Personal to catalogue my CD-collection. Because it is fairly large, it was necessary to store it on two discs as CD1 and CD2.

I have now purchased an Amiga 1200 and fitted a hard drive and accelerator. With this in mind, I now want to combine the two files on the hard drive into one, whilst still retaining the Sort facility.

I am sure that there is, within the program, a function to help me do this, but like many user guides, it's double-Dutch.

Could you explain in simple terms, the way to combine these two files. My only other recourse is to re-enter all the records from one of the files.

Bob Lawrence
Essex

Answers contents

If you are looking for a solution to a particular problem, why not try using this handy index to the questions in this issue. It's arranged by topic, so if you are being kept awake at night by a noisy hard drive, then be on the look-out for any mention of hard disks.

This is a problem I came up against many moons ago when I went through the same process as you and the good news is... yes it can be done, although I'm sure you'll agree that Superbase on the 1200 isn't as stable as it is on the 500.

To merge your two files, follow these steps. First choose Open (Project menu) and select the second of the files, which I gather will be CD2. Once this has loaded, choose Export (Process menu). A requester will appear on-screen. Click on OK without having selected any of the filters. A Filename requester will pop up and type a name for your file such as 'File2' into there.

Now close your file and choose Open (Project menu) and select the first of your CD files, which should be CD1. Once that has loaded, choose Import (Process menu) and again click OK on the filter requester without having selected a filter. A Filename requester will again appear, into which you would type 'File2'.

This, remember, is the second of your files that you exported and will now be added to the first file already loaded into Superbase. Save the file and, there you have it, all your records in the one file. ***Larry***

Driving the Stylus

Printers

In the May issue, I found that the Epson Stylus Colour printer won second prize in your Reader Awards. I presume that several readers have this printer, so I would like to address this letter to them as well. I totally agree with their choice – however, I still do not get the quality output I have seen with a PC and am thus looking for some help and advice.

I bought the Epson Colour Stylus printer about one month ago after viewing some results obtained using a PC at 720 dpi. After installing the printer, I installed the Studio II Professional program which gives you the capability of using the Stylus with the Amiga.

The best results I obtained were with EpsonP2Prefs driver (printing from PPage 4.1, PageStream 3.0g, Brilliance 2.0, or DPaint IV AGA) which gives a result comparable to the PC-output, although at the same time, it is less brilliant and produces very annoying bands (at 360 dpi as well). These are smaller if the Microweave function is on, but visible and thus annoying.

The Studio Picture Printing program uses a different output module, has other settings and parameters and the results are quite horrible. Much too dark, too much red and the colours leak through the page.

Unfortunately, the settings for both are different and cannot be combined (at least I don't know how to do it). I could not configure the Studio Output Module based on the parameters of the Workbench driver. Furthermore, even with 50 different dithers, the one that is used by the Windows driver is absent and I could not find the corresponding matrix to introduce the data into Studio.

Does anybody know where I can find this type of information. After three weeks of testing, I used about two ink cartridges and over 200 pages for 720 dpi and I am still searching for output I'm proud of.

Then I started looking for some help through the Internet and found that another driver was available in the US from Endicor. When I received this one, I started all over again to find out that the Workbench driver has some strong points, but some weak points as well.

First of all, it enables you to calibrate the printer, similar to the Windows calibration program and there is a colour correction option so that the colours do not bleed or leak. And even with Microweave on, there is no visible bands at all. However, this driver only works with the three dithers from Workbench and the output, therefore, is very disappointing.

Before eventually buying Turbo Print 3 Professional, I would like to hear some of the results obtained by others. I am interested in your advice or any suggestions that can help me.

Weyens Guy
Belgium

Printer drivers – who needs them! Having used the Epson Colour Stylus PC driver written by a company called Software 2000 in the UK, the rigmarole involved in using

60

Unable to open your tool

Software

Many people are baffled when they double-click on an icon on Workbench and get an error message like this. It's a very simple problem with an easy solution.

If an icon doesn't relate to a program or an executable file, which mostly means documents, scripts, pictures and the like, there is often a "default tool" specified. When you launch this icon, your Amiga will attempt to load that program before reading the file. So, for instance, if you've created a picture with DPaint and then click on its icon, DPaint will be loaded and that picture will be loaded in automatically.

To see which tool is designated for an icon, single-click on the icon and then select "information" from the Icons menu on Workbench. The program is specified in the "Default Tool" box.

Normally none of this causes any problems, but sometimes the Amiga cannot find the correct program. This can be quite simply because you don't have the relevant program, as is often the case with specified text readers.

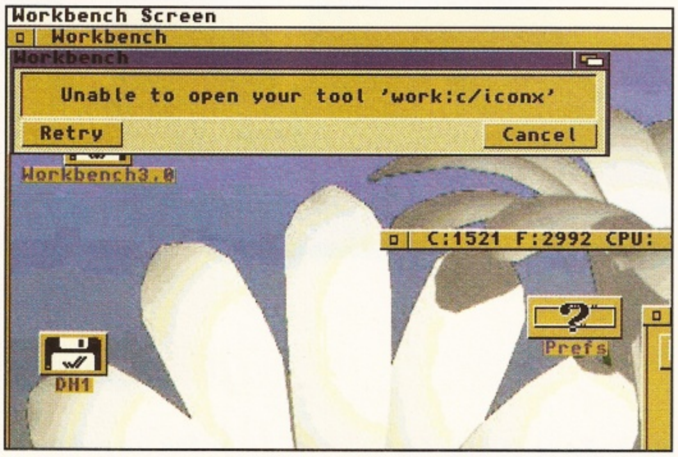
So many different readers are available that people often specify one other than the Amiga standard "more", which doesn't offer very much in the way of control. Common ones are PPMM (Power Packed Much More) or Fullview. If the document is plain ASCII, you can change the tool to More or any viewer you have and if it's in HyperText or AmigaGuide format, you should specify Multiview or AmigaGuide depending on your system.

If the tool simply specifies the program – for example, "More", then you must ensure that the program is within the search path for your Amiga; on a standard machine that means C:, SYS:Utilities, or the like. Check your startup-sequence in S: to see what search path you have set up.

If the program is not within the correct search path, you must note the correct path in the icon, e.g. "SYS:MyUtils/More". Sometimes the path may not specify the volume name – for example, ":utils/more".

In this case the ":" makes the Amiga look on whichever volume or partition the icon is on. So, if you have the document installed on a floppy disk called CoolProgs, the icon would be instructing the machine to look for more in the utils directory on that disk.

Then, you must make sure More exists there, because even if More *does* exist in your normal search path, the icon is sending specific path instructions. I'm sure there's a possibility for a "path-o-logical" joke here, but I'll avoid it.



It's a good idea to get to grips with the idea of default tools, because they can be made to work for you and save you from annoying errors.

Because people often set their icons to their system, PD programs that are passed on often cause default tool errors and it's best to change it to suit yourself. With scripts sometimes used to install programs, IconX is often named as the tool. IconX is the command that Workbench uses to execute scripts, but more often that not, the path is incorrect. Again, simply change the path in the icon information (IconX should be in your C: directory).

It's a good idea to get to grips with the idea of default tools, because they can be made to work for you. Remember that DPaint picture? Well, why load the full DPaint program every time? Maybe you'd rather use a program like Viewtek, so open up the information and change the tool to Viewtek, remembering of course to specify the right path.

For more information, refer to your Workbench manual. ***David***

Amiga drivers just goes to show how badly Commodore got it wrong when designing the printing system with the Amiga. Not that Windows is that much better, because there are still problems with it, but, as you point out, the output from the PC is very good.

It is worth remembering, however, that the Stylus Driver you refer to for the PC is written by a large company that specialise in writing specific drivers. Studio 2 on the other hand is written by one man and contains many drivers for a large variety of printers. It took Wolf two years to write, working day and night, and although it isn't perfect, the reviews in Europe have given it a much better reception than Turbo Print 3.

I used Studio 2 during the Supertest of InkJet printers (see page 22 in AS51) and found the output to be very good indeed. In fact, a representative from another printer manufacturer saw the samples from it and took a couple of them with him to use as a guide for their own printers.

My advice, based on the results I managed to get after testing the printer for only three days, is that if you are printing pictures, use the Picture Printing application program. The colour adjustment is much easier to use than the one in the Prefs program for Studio and the results are very close to those found using a PC.

When using applications like ProPage and Final Writer, I did find there was too much black on the page, but this is a problem I expect the author will sort out when he comes back from holiday. The problem only happens in colour mode from applications like ProPage and Final Writer and it is possible to reduce the black using the EpsonP2Prefs program.

On the subject of Endicor, they are working on better drivers, but bear in mind that it took two years to develop Studio 2 and I don't expect Endicor to come up with a miracle driver overnight. And as for Turbo Print 3, there isn't any sign of it appearing on English shores. The best advice I can give to get output you're proud of, is to write to Wolf and discuss with him how you get more from Studio.

After all, no-one knows Studio 2 like the author does. In the meantime, maybe all those Colour Stylus owners would like to write in and tell me what they think of the output they are getting with a couple of samples for me to judge one against the other. ***Larry***

Replacement Amiga manuals

General

A few weeks ago, a friend sold me his A500, but, unfortunately, he has lost the user-manual. Last week, I bought another Amiga – a second-hand, two-drive A1200 – but, to my dismay, again there were no user-manuals. Can you tell me where I can buy these items?

Stephen Hyde
Lemmington Spa, Warwickshire

All Commodore items are in short supply at the moment, but CPC (☎ 01772 654455) should be able to supply you with at least the A1200 manuals (I believe the price is about £13 with postage). Previously, they have had A500 manuals in stock, but, to be honest, I would imagine that supplies of these have long been exhausted. ***Paul***

Word processor power

Software

Next year, I am moving into sixth form and will be studying English, history and computing. Currently, I use Final Copy II Release 1 to write essays, stories and so on, but have now decided to buy a better package.

I have an A1200 with 85Mb hard drive, but no expanded memory. I am undecided on whether I should buy Final Writer, Wordworth 3, Final Copy 2 Release II, or Wordworth 3.1 SE.

Are Final Writer and Wordworth 3 too powerful for my requirements? Which of the above would be better suited for me? I will need to write essays, including quotes, novels and perhaps reports in my three subjects. Will Final Copy II be sufficient? Which is better for my needs – Final Copy II, or Wordworth 3.1 SE?

Chris Maynard
Aberdeen

Choosing a word processor has to be based on your needs and the best person to make the

decision is you, because only you can weigh up the pros and cons of each product in relation to the features found in the programs you mention.

I, for example, use a text-based word processor called Protext because it's quick and doesn't get in the way of the writing process. I've now written seven books and Protext suits this purpose. I could have used any of the word processors you mention, but for large amounts of text, Protext is best for me in my opinion. Others will no doubt disagree, because we all have different needs.

Your first task is to make a list of the type of documents you need to do. The type of questions to ask yourself are "Do I need to use pictures and what formats (IFF, GIF, PCX) and so on need to be supported by my chosen program?".

The high-end word processors like Wordworth and Final Writer are both pretty similar at a glance, but do differ in some significant areas which I'll go into in a minute. Final Copy II release II and Wordworth 3.1SE are also very good, but lack the features a serious user, like yourself, will probably require a year or so down the road. I always feel it's better to spend another £20 or £30 now, instead of spending £60 or £70 later, when you find you can't do without certain features.

So, my advice is to go for either Final Writer or Wordworth 3.1. Before you do, though, you will have to add a little bit of memory to your Amiga as both programs operate much better in 4Mb of memory than they do in 2Mb. Your next step is to choose between Final Writer and Wordworth and this is where you need to ask yourself a lot of questions.

Although both programs share a lot of features, they do differ, as I just said, on some significant ones. Wordworth, for example, has support for tables, text frames with multiple lines of text, mail merging with more than one record per page, support for CGM graphics popular on PCs, a Print Manager for enhanced output, the ability to view pages side-by-side, text effects for rotating, twisting and creating special effects, plus support for True Type fonts.

Final Writer, meanwhile, has a much more flexible system for sections within a document making it ideal for reports and so on. It also has a very good system for tagging text to help you keep text looking consistent. The creative side of the program enables you to stretch and rotate text and if you were wondering about text effects, they too are supported by using a third party program called Final Wrapper to automate the process. Final Writer has better PostScript support through the use of NimbusQ fonts.

The bottom line is that both programs are very good and, at the end of the day, it's what you want from it that matters. You mention stories for example and both programs can handle that, but if you want to include tables in your stories then you need to choose a program that supports that function.

To complicate matters further, I know that both publishers are looking at the features supported by the opposition and will be implementing a number of these in further versions that will probably appear in four or so months time. In light of all this, it would be wrong of me to make the choice for you, because I don't know your exact needs. As a starting point, make a list of the things you want the word processor to do and then get specification sheets for both of them and see which one best supports all the functions you require. ***Larry***

Hard disk installation



I wish to upgrade my A1200 by installing a hard drive. The two drives I have in mind are the 120Mb Siren 2.5 inch, or the 270Mb Datel 3.5 inch. Would there be any problems and would I need to buy any extras?

A Stanley
Parkstone, Poole

In most cases physically fitting a hard disk is very straightforward, although users do sometimes have problems with formatting, partitioning and so on.

All companies will provide the necessary fitting instructions, cables, partitioning software and so on, and many will also have formatted and partitioned the drive and installed the Workbench software for you.

Siren Software not only do this, but will actually fit the drive for free, providing you can get the machine to them. Datel, and most other companies, are also usually happy to help in this way, providing you give them a little advance warning. ***Paul***

1950 monitor problems



I have a problem with a Commodore 1950 multisync monitor (made in 1990) which I purchased cheaply because it was faulty – it kept blowing the internal fuse when switched on.

After lengthy investigation by my father (whose hobby is electronics) it seemed that two transistors were misbehaving and, after months of trying to trace some replacements, we finally installed two new transistors and at last got the monitor to power up without blowing the fuse. So far so good.

But now we had another problem – a high-pitched whine coming from the motherboard which was rather hard to trace, but which altered pitch if the contrast or vertical adjustment knobs were turned, or the display switched between analogue and TTL.

Since the heater guns on the end of the tube are working, we guess that the low tension circuit is working OK, although it looks like the tube itself is not getting "excited".

We have not been able to try the monitor hooked up to my A1200 since the lead which

Cable problem

It seems like quite a few readers are often at their collective wits' end when they find themselves in need of a non-standard cable. There are very few stockists for the more unusual cables, but one place to try is RSD Connections Ltd. ☎ 01992 584205

61 ▶ should connect the monitor to the Amiga (which I am told should culminate in a 15-pin VGA plug) is missing. There is a row of 10 pins on one of the circuit boards, but we don't know which is which, apart from pin 1, which is ground. Perhaps it would be possible for you to inform me of the correct connections?

We have tried several connections, none of which has worked. Do I need to set the computer up for a multisync display before trying the monitor? I tried the connections you gave for the Mitsubishi multisync in AS48, but this just crashed the computer.

Commodore Technical Support were (as always) less than helpful, even to the extent of saying that Commodore never even made a 1950 monitor.

Wayne Coombs
Radstock, Bath

Obviously, you knew you were taking a risk buying a faulty monitor, so I won't do my usual sermonising about buying something which doesn't work, except that you didn't get a manual with it. What I am surprised about is that you haven't taken the direct route and contacted a monitor repair specialist (you'll find several ads in Amiga Shopper and other Amiga magazines, as well as in your local Yellow Pages) and tried to get your 1950 fixed and tested by an expert – though no disrespect to your Dad here.

I'd make a few phone calls and see if you can find someone willing to fix the monitor (or at least who'll be able to give you an honest appraisal of what's wrong with it and how much it might cost to fix), otherwise this could drag on for ages.

Out of interest, when you power the monitor up, can you feel any "static" coming off the front of the screen? If not, you can probably assume that either the tube or the HT circuit is faulty. I'd make an educated guess (though I'm not an electrician or TV repairman) that the whining you mention is caused by a faulty HT transformer, and you may well have trouble getting a replacement. Again, I'd recommend you contact a professional repair shop.

As far as your using the connections for the Mitsubishi go, I would advise you to be careful when you have no idea what connects where! Not all monitors use the same pin layout and you could possibly risk damaging the monitor if you make a mistake. Certainly using one set of connections and transposing them to another monitor isn't a good idea.

As for Commodore Technical Support not being very helpful, I'm not particularly surprised given the amount of pressure they've been under since the liquidation began. But denying that they had anything to do with the 1950 seems a little out of order to me, unless you were talking to a secretary.

I tried calling Commodore Technical Support myself, but there was no one available to deal with me at the time. I also tried Customer Support (the ☎ 0181 3028383 number) and got through on my second attempt. They reckon that the 1950's input connector is a standard 15-pin VGA configuration as follows:

Pin 1 – Red signal
Pin 2 – Green signal
Pin 3 – Blue signal
Pin 4 – Not used
Pin 5 – Ground
Pin 6 – Red ground
Pin 7 – Green ground
Pin 8 – Blue ground
Pin 9 – Not used
Pin 10 – Sync ground
Pin 11 – Not used
Pin 12 – Not used
Pin 13 – Horizontal sync
Pin 14 – Vertical sync
Pin 15 – Not used

I also asked if they knew of a suitable repair shop for your monitor, but they couldn't help on this one. ***Gary***

LightWave, Trek and Bones

Program Software

I wonder if you could kindly help me with two LightWave-connected matters?

1. How do you produce a decent glowing effect, like the glowing warp nacelles on the NG Enterprise?

2. Could you run a 'Bones' tutorial for LightWave, as the object skeleton idea totally confuses me. I understand the concept of Parent – Child 1 – Child 2 objects, but how do Bones help me?

Kier Darby
Purley-On-Thames

The glowing nacelles of the NG Enterprise are actually produced with LightWave, but not LightWave as we know it, Jim. They are a feature of the new 4.0 release (low-cost upgrades will be available to registered LW 3.5 standalone owners) which was requested by Amblin Imaging – who are currently working on Star Trek: Voyager – for the very purpose of making the glowing nacelles! So I guess the answer to your question is that if top-flight animators like Amblin can't easily do the nacelle glows without asking for a new feature, then it's unlikely that the rest of us can.

Of course glowing effects of a sort can be done with LightWave by making semi-transparent objects with high luminosity, but they don't produce quite the same effect as what you're asking about.

Now back to the medical bay for the other part of your question – Bones. First, let's consider a body and its skeleton. Think of the body as your 3D object, though unlike in real life a 3D object won't just collapse because it has no skeleton. In real life, the skeleton provides a framework to support the body and provide a flexibly jointed, though essentially rigid, structure on which the body can 'hang' whilst the skeleton is moved by muscle action. As the skeleton moves the skin of the body flexes and stretches to accommodate the movement of the skeleton, but it always retains a smooth surface.

Bones in LightWave allow you to construct a system of 'control rods' which can be thought of as analogous to the bones which make up a skeleton in that when they are moved or rotated, they affect the surface of the object to which they are attached, causing it to flex and stretch. Instead of using bones, you could make several versions of an object in a variety of sequential positions (for instance, several poses to produce a running man) and morph between each to portray a running sequence, but the provision of Bones makes this process much easier.

By adding Bones to an object, it is possible just to move the bones and the object itself will move. You should try the Bones tutorial in the LightWave manual (Page 47, Tutorials Layout) to get a basic idea of how they work. You'll have to do quite a lot of reading between the lines since it really isn't a great tutorial – the illustrations referred to are missing and the information given relies on the reader to fill in the missing bits.

To help you get started, make sure that the desklamp stem is modified so that it is made of triangular polygons and is subdivided once (do this in Modeller). If you can't find the

Installation trouble

Program Software

The Commodore Installer utility was created to help make installation of programs easy. Although many commercial products make use of the Installer, some PD releases contain Installer scripts, but don't include the Installer itself for reasons of size or distribution rights.

Installer scripts are easy to recognise; the icons show a picture of a disk and a wire going to a socket. The Installer itself is designed with three levels of users in mind: novice, intermediate and expert. Due to its flexibility and ease-of-use, it's worth getting a copy. The good news? Most PD libraries stock it! *David*



If you haven't got the Commodore Installer utility yet, get it now!

desklamp object, try looking in the Furniture drawer. You might also find that the BaseBone needs to have a larger rest length than is given in the tutorial.

What you really need to do is experiment, because the tutorial really isn't very good and doesn't give a very clear introduction to the true power of Bones at all. I think you're right – a Bones tutorial would be a good idea, but here isn't the place for it. Let's see what the Editor thinks. ***Gary***

Display from DOpus

Software

I have Directory Opus 4 and I'd like to set it up so that I can display images directly on to my OpalVision graphics card. The trouble is that every time I try to sort it out I get confused and eventually give up. I know it can be done, but I just can't seem to figure it out. Can you tell me how?

J. Kennedy
Lytham St Annes

I can sympathise with your problems, Mr Kennedy, since I too found Directory Opus somewhat tricky to deal with at first. However, I persevered and nowadays I wouldn't be without it. As well as ordinary file management tasks I use it to display text and graphics, open files to my text editor, archive and unarchive LHA'd files and much more.

What you need to do is get DOpus to recognise your files (whether text, .iff, 24-bit or whatever) and then get it to act on that file in the way you require.

The simplest way of doing this appears to be by setting up a Filetype which will determine what action is taken – for example, when a file name is double-clicked on. Here's how you could do it:

1. *Open DOpus's Configuration window (use the pull-down menu or the small "C" box in the lower right-hand corner.*

2. *Click on the Filetypes box in the configuration window.*

3. *Next, click on the New box. A requester with a list of names will appear. Scroll down the list until you get to "Picture, IFF ILBM 24-bit" and select it. A new window with a lot of choices in it appears. This is where we define what happens when a 24-bit image is selected from within DOpus's selection windows.*

4. *Let's set up a DOpus filetype so that a 24-bit file will be displayed on the OpalVision when we double-click on its name. First, make sure that "Action Double-click" is highlighted in the uppermost box. Then move down and click on the New Entry box. Several boxes will become unhosted and an entry bar will turn coloured (red if your palette is set the same as mine, which isn't necessarily the case).*

What you must do now is to tell DOpus how to react when it encounters a 24-bit image – in other words make it run another program to load the image to OpalVision and display it until we click the mouse to return to DOpus. The program we need to use is called Show24, and you should find it in the Utilities section of your OpalVision drawer.

So, now click on the box marked "Command" until it reads AmigaDOS, since the Show24 program runs from AmigaDOS. If you know where your Show24 program is you can type the full path name for it into the text entry box to the right of the magnifying glass symbol, for example:

```
"DH4:VIDEO/OPALVISION/OPALUTILS/SHOW24"
(the case isn't important)
```

If you aren't sure where Show24 is, click the magnifying glass button and a requester will pop up for you to find and select Show24 from. Still in the text box, type a space after Show24, then either type in {f} or click on the curly brackets button to the right of the text box and select {f} from the requester.

Press the return key and the text will become an entry in the large centre box.

Now click the Okay button at bottom left, and press RightAmiga-S to save the new configuration file. Exit back to the main DOpus screen and double click on an 24-bit image you want to display.

If you've done everything right, there should be a short delay and then your image will appear in all its true colour glory. Click the mouse button and you return to DOpus. This method can be used to do all kinds of things. I also use it to display OpalVision animations, as well as GIF and IFF files. Now you can too. ***Gary*** ■

Fill in and get answers to your questions — AS**52**

If you send in a question for the Amiga Answers experts, please fill in and include the form below (or a photocopy if you don't want to cut up your magazine). If you have several questions in different fields that should be addressed to more than one of our experts, please send in your queries on separate forms.

Send your form and question to: Amiga Answers, Amiga Shopper, 30 Monmouth Street, Bath, Avon BA1 2BW.

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____

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Your machine:

☐ **A500** ☐ **A500 Plus** ☐ **A600** ☐ **A1000**
☐ **A1200** ☐ **A1500** ☐ **A2000** ☐ **A3000**
☐ **A4000**

Approximate age of machine: ____________________

Kickstart version (displayed at the "insert Workbench" prompt)

☐ **1.2** ☐ **1.3** ☐ **2.x** ☐ **3.x**

Workbench revision (written on the Workbench disk)

☐ **1.2** ☐ **1.3** ☐ **1.3.2** ☐ **2.04/2.05**
☐ **2.1** ☐ **3.0**

PCB revision (if known). Do not take your machine apart just to look for this! __________

Total memory fitted (see AVAIL in Shell for Workbench 1.3) ______

Chip memory available (see AVAIL in Shell) __________

Agnus chip (if known) __________

Extra drive #1 (3.5in/5.25in) as DF : Manufacturer __________

Extra drive #2 (3.5in/5.25in) as DF : Manufacturer __________

Hard disk: __________**Mb as DH**__________**:**

Manufacturer __________

Extra RAM fitted – type, size in Mb and manufacturer __________

Please indicate details of any other hardware which could help us to answer your question:

____

Now, use this space to describe your problem, including as much relevant information as possible. Please continue on a separate sheet if necessary.

____

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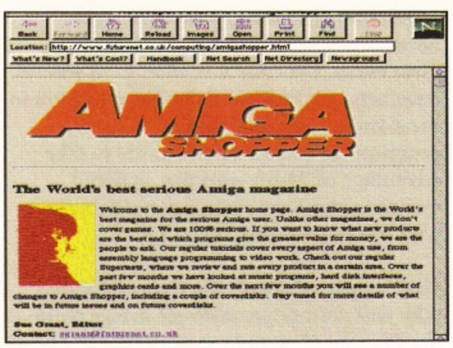
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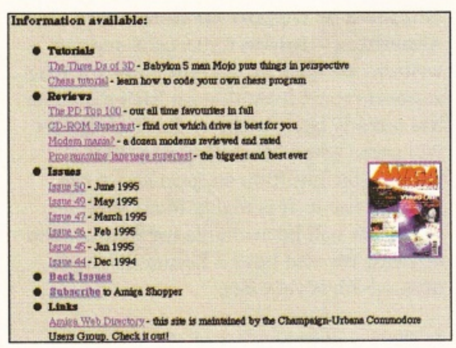
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Almathera conference on IRC

With the launch of Photogenics 1.2, the upgrade of 1.1a, Almathera were special guests at a recent IRC (Internet Relay Chat) conference. **Jason Compton** *was there to report on what was said.*

On March 22 1995, a moderated IRC conference was held with Almathera, makers of Photogenics, the new 24-bit paint/manipulation program. This report is made up of a collection of questions from various Internet conference guests and answers from the Almathera guys.

I'd like to say a special thanks to Martin Brooks and Jkay for their assistance in moderating the proceedings. Future IRC conferences are also being planned with MacroSystem Germany and Quasar Distribution expected to be my next guests.

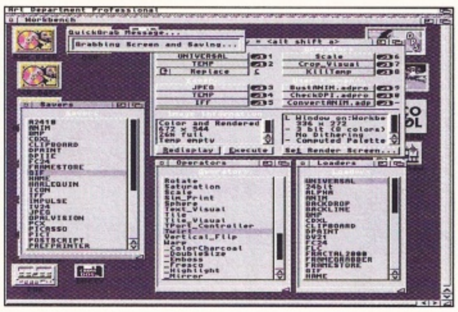
OK, let's get underway. Almathera, would you like to introduce yourselves?
OK, on the panel we have: Paul Nolan (the original author of Photogenics), Jolyon Ralph (Technical Director, also programmer), Jason G. Doig (programmer, also author of Dogenstein 3D), THP (SteeV @ Almathera, Netsurfer and CD cutter) and Mark Tipper, our GFX man.

Can you give the home audience a brief overview of your company and products?
Almathera – Jolyon We've produced over 14 CD-ROMs for the Amiga, including CDPD1-4, and many others.

Photogenics is our first Amiga application and is a state-of-the-art, 24-bit paint/image manipulation package.

I've heard CyberGFX will be supported. Will there be support for Retina and EGS?
Almathera – Jolyon CyberGFX support is written. We have no current plans for EGS support (apart from that an EGS-displayer has already been written). Retina support will come when MacroSystems improve their 24-bit Intuition support so we can actually *use* it. It is highly likely that GyberGfx will be available for Retina soon anyway. We also have a Retina displayer now, which is very fast.

Is there a new version of Video Creator coming and is there an upgrade path?
Almathera – Jolyon A new version of VC is under development – there will be a cheap upgrade. NTSC is one of the new features.



Is Photogenics a match for ADPro? Find out in next month's (AS53) paint package Supertest.

> "We're aiming for direct **support** of all the filetypes you'd ever encounter."

Do you see CyberGFX as being the RTG system of the Amiga's future?
Almathera Yes! CyberGFX is not only a card-independent system (allowing one product to work on a variety of different graphics cards) but it is actually faster (significantly in many cases) than the hardware-specific drivers provided with most cards. CyberGFX is what EGS should have been – a FAST and simple extension to the standard Amiga libraries to allow programs to be converted simply to take advantage of 24-bit graphics, and still maintain standard system compatibility with the same executable code.

I am confused about the CyberGFX and why you cannot get a direct driver from the Picasso II guys to support their 24-bit graphics card?
Almathera – Jolyon Photogenics is a standard Intuition program. The Amiga OS does *not* support running in more than 8-bitplanes. CyberGFX patches the OS to allow this, which is much more than normal graphics board drivers do... It's also much faster than the normal Picasso drivers.

Will Photogenics compete with Art Department Pro and, if so, will there be an upgrade for ADPro users?
Almathera – Jolyon Good question. Photogenics does not claim to do everything that AdPro can do (currently). Obviously, we're working on these features for future versions. Competitive upgrade from ADPro etc. is a possibility, although our program is extremely low-priced anyway.

Being producers of CD-ROMs with freeware etc., don't you think you are making money from other people's hard work?
Almathera – THP When we started doing CD-ROMs, the Fred Fish collection cost nearly £100 (over here) on CD. We brought it out at under £20. Buying PD/freeware on CD is still the cheapest way for most people to obtain this software in bulk. Doing these disks isn't a simple task of dumping a HD to a CD in general, unless the structure already exists (such as Aminet). Usually, we spend one or two months full-time doing each disk and production costs need to be met.

You have to remember that there are lots of people who do not have access to the internet and cannot get free software that way. Why should people pay £1–£3 for PD software on diskette?

Will you release more painter modes, savers, operators etc. as plug-ins? Also, how will you distribute these if you do?



Almathera brought out the Fred Fish collection on CD-ROM.

Almathera – Jolyon We are always writing new paintmodes, GIO loaders, plug-ins, etc. Some of these will be available freely over the Internet (ShowHiQHAM8 was uploaded to Aminet last week, but didn't appear for some reason.) Some will be available commercially (e.g. scanner drivers).

For the next version, will you use more of the disc space available for a bigger supply of QuadAnims, pictures, etc., or even some CD music-tracks for novices?
Almathera – Jolyon Yes, we've got two new tracks already and we'll be interested in anything anyone wants to contribute. More quads and images of course.

In Photogenics, is there some sort of module, possibly made by third parties?
Almathera – Jolyon The GIO format (graphic input/output) which covers loaders, savers, scanners, displayers, printers, grabbers etc. is fully documented with example sourcecode. All developer files are freely available (supplied on disk 3 with every package).

Anyone interested in writing support for Photogenics should contact me on jralph@cix.compulink.co.uk. Support for plug-in type modules (effects), etc. will be available in a forthcoming version. (Free documentation again.)

Is there any hope at all of Photogenics supporting the MAGIC drivers developed by Nova Designs (ImageFX)? Also, would it be feasible to license your GIO format to other companies (like Nova)?
Almathera – Jolyon We looked at MAGIC – it's possible, but Photogenics works on totally different internal buffer formats (more memory-efficient), so it's not easy for us to use. Nobody has asked us to license GIO yet.

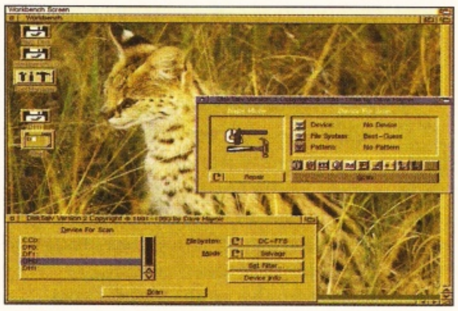
I am enjoying the plasma feature on Photogenics and I am trying to make a cycle where the plasma field can be a cycling background. Can this be done? Can small predetermined increments be made in cycle style, as in DPaint?
Almathera – Jason Make sure you clean your screen afterwards.
Almathera – Paul/Jolyon You can't do 24-bit colour-cycling. But doing a sequence with ShiftHue might do a similar effect.

CyberGraphics is excellent, but why can't you install it without being a computer scientist?
Almathera – Jolyon Firstly, CyberGFX is still under development. Yep, it's a pain to install at the moment, but that will be sorted.

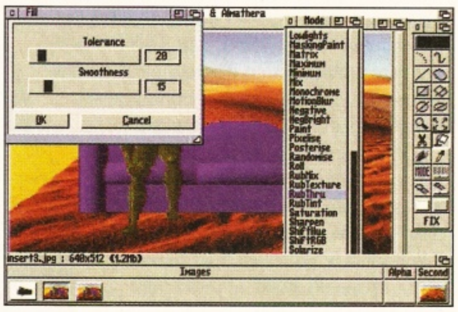
Regarding the "additional loaders/savers" topic, I know a lot of folks who would love a PCHG loader/saver...
Almathera – Jolyon Ah! Well, I was thinking of doing PCHG (Palette Change Hires for those who don't know) support, but I didn't know if anyone would want it. I'll have another look at it and maybe soon I'll get a PCHG.gio written.

Will Photogenics be speeded up for the less fortunate people who only have a standard 1200?
Almathera – Jolyon I'd like to improve the performance, but it's already doing so much work with 24-bit data that it's difficult to get it running any better.

You know how long I've been waiting for Video Creator NTSC. How is the upgrade coming? Both floppy and CD versions were considered...
Almathera – Jolyon Work is continuing on VC NTSC, a decision for a floppy version has not yet been made, but is highly likely.



DiskSalv 3.0 is a wonderful disk-doctoring program (which received a Star buy in AS51) that Almathera distributes.



Photogenics – what can be said about this wonderful program that you don't already know.

Is there any consideration or work being done on porting Photogenics to another platform?
We've got some plans for porting, but don't expect to see Photogenics on other platforms this year...

Out here in New York nobody has seen PG yet. Any chance of a demo? If so, where?
Almathera – Jolyon The March issue (issue 69) of Amiga Format carried a Coverdisk demo of Photogenics.

When we get a new demo version we'll upload that to Aminet. As for distribution – at the moment anyone can buy Photogenics directly from us (☎ 0181 683 6418, Fax 0181 689 8927). We ship international air-mail orders for £62 (which is around US$100) directly. You can also order by E-mail if you want to (E-mail address found at the end).

Are you using or planning to use, the datatypes of 3.1?
Almathera – Jolyon, Jase, Paul We don't support datatypes because they are currently limited to a maximum of 256 colours, so loading a JPEG (for example) would be much worse than using dedicated code. They're also very slow.

We're aiming for direct support for all the filetypes you'd ever encounter. Adding a 'datatype.gio' as a last resort if you've got some really strange format file that only datatypes supports is, of course, possible – we may well do that soon...

I use DODOShop on a Quadra and SGI. Photogenics on my A4000 screams in comparison.
1. Will you distribute 1.2 on CD-ROM?
2. Will you be developing layers, à la DoDOshop 3.0?
3. Will you be making a structured drawing companion to Photogenics, à la Frustrator (Illustrator)?
Almathera – Jolyon 1. Yes, possibly. If there's enough interest.
Almathera – Paul 2. I'm working on a multiple-positional, would-be-distortable layers-system which will kick ass!
Almathera – Jolyon 3. It's something I'd like to do (structured gfx package), but we don't have any firm plans for one.

The AF demo of PG seemed rather slow on my 50Mhz 1200/030 – is the full version any quicker?
Almathera – Jolyon I use a 50Mhz 1200/030. A lot of it was developed on that machine. Make sure you're running PAL (or NTSC) modes, *not* DblPal, DblNTSC, or Productivity modes; they have such severe bandwidth restrictions that any program running in 8-bit planes (e.g. Photogenics) has problems. Mode promotion – just say *no* kids!

Will you (or have you) branched out into the "oh-so-lucrative" world of PCs? Do you think it's possible to survive as an Amiga-only developer?
Almathera Yes, we're obviously looking to port to PCs *eventually*. I think we'll wait until PCs get a sensible OS first. (So, no work to do this year.)

Tell us about what other products you have? I read somewhere that you have a networking product?
Almathera – Jolyon We don't have our own networking products, but we are UK distributors for all of IAM products, including Envoy 2.0 and DiskSalv 3.0.

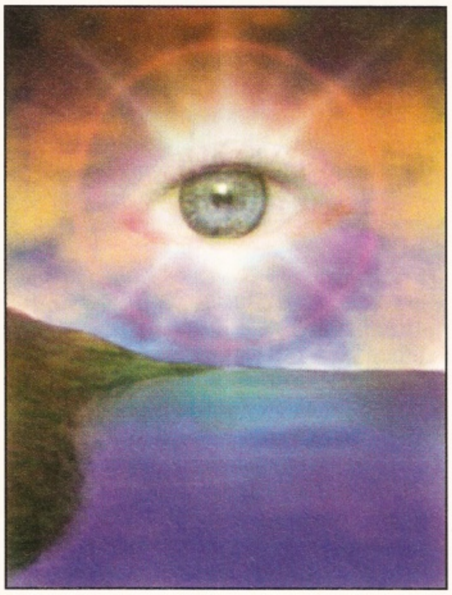
Is there a 040 FPU version of Photogenics with also a Picasso 24-bit saver?
Almathera – Paul Nolan Photogenics uses fast integer mathematics for all operations, so there is no benefit at the moment for an FPU version. Future versions may come with FPU versions. Photogenics comes with Picasso 24-bit saver as standard.

That should about wrap it up.
Anyone can mail Almathera at jralph@cix.compulink.co.uk for questions about any of their products. ■

Photogenics

Part 5

*This month **Graeme Sandiford** uses Photogenics' Composition tool to combine two images to create a stunning final image.*



This stunning image was created by Paul Nolan and illustrates what can be done with composition quite nicely.

Combining two or more images together is one of the most common and fun uses image processors are put to. Why fun? Well, by using the marvels of computer imagery you can create images that simply cannot exist in the real world – like placing a scanned image of your "dearest" sibling under a suspended car, or other heavy object.

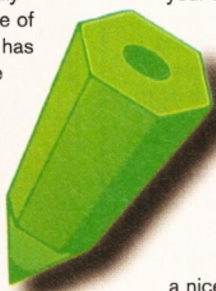
At first I thought this would be a simple tutorial simply using Photogenics' Compose tool, but it turns out that there are actually several ways to go about this. That's one of the great things about Photogenics – it has so many tools that you can do the same thing in a variety of different ways.

We're going to do a composition in two ways: first by using the Compose tool and then with the Masking Paint and Rubthru Paint modes. Although this tutorial is not dedicated to using alpha channels, we'll be calling on their help once again – most operations can be performed more smoothly with them.

To start with, we are going to need two images; it's easier if they are the same size, but this is not essential. It helps if the area you want the image to show through is either black, or another solid colour, so that it can be selected and changed easily. Remember, if you are going to be using an alpha channel, the areas that are black will be transparent. The image that you wish to use as the foreground should be loaded or moved into the secondary image buffer.

Next, select Compose from the image menu – this will bring up a small requester and overlay the foreground image with the secondary image, a box and several dots. If the images are different, you can resize the background image using the dots (handles).

If you have an alpha channel, you can simply click on Alpha Compose and the Compose tool will use it as a template and combine the images for you. If you are not that fortunate, you can do it by hand. To do so, click on the Blend In/Out button, this will enable you to draw through with your right mouse button to reveal your background image.

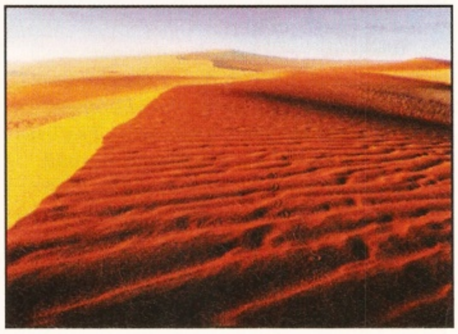


Now let's try using Rubthru mode, which gives you more options. First you'll have to swap the images around, then select the Rubthru mode. The easiest way of doing this is to use an alpha channel, if you have one, and then apply this mode to the whole screen – bingo. Easy, eh?

The next easiest way is, if you have a nice solid area of colour as mentioned at the beginning, to use the Flood tool. While still in Rubthru mode, select the Fill tool and click on the solid area. If it's not quite solid, then change the tool's tolerance level by clicking on the icon again.

The hardest way of using the Rubthru mode is to draw on the areas you want to "rub thru". You may find it easier to draw in Masking Paint mode first, because it's slightly transparent, and then switch to Rubthru when you've selected the area – remember you can remove your paint with the right mouse button. ■

> "Photogenics has so many **tools** that you can do the same thing in a variety of different ways."



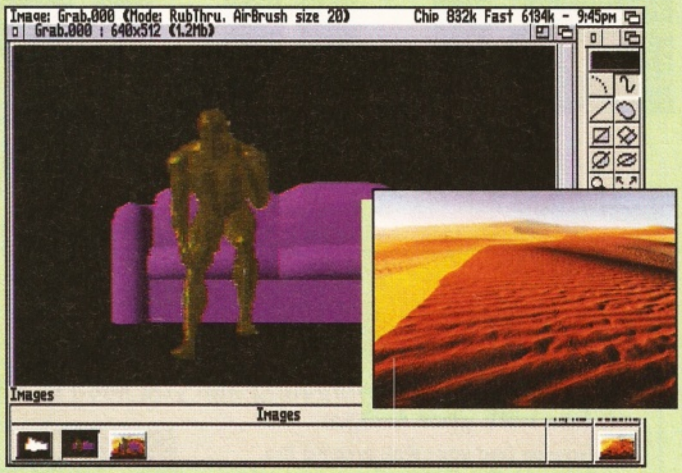
We'll be using Photogenics' Composition tool to combine a rendered image with a scanned one.

More tutorials

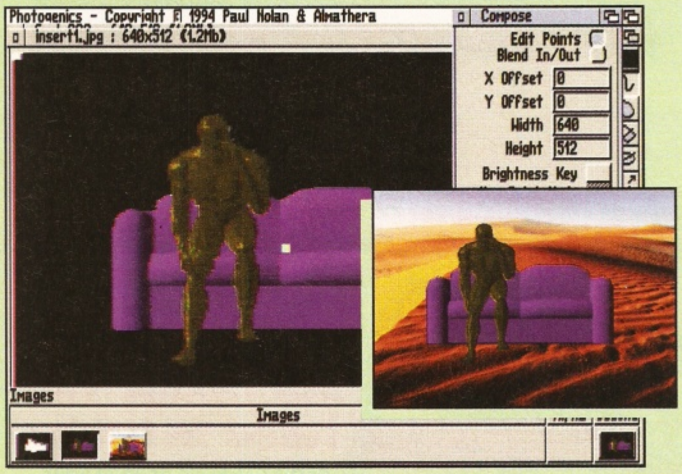
This is the fifth of seven tutorials where we'll be covering most of Photogenics' features. Some of the techniques that we will discuss in the tutorials listed below are equally applicable to other similar packages.

1. Alpha channels
2. Text effects
3. Filter effects (part 1)
4. Filter effects (part 2)
5. Image composition
6. Image retouching
7. Drawing techniques

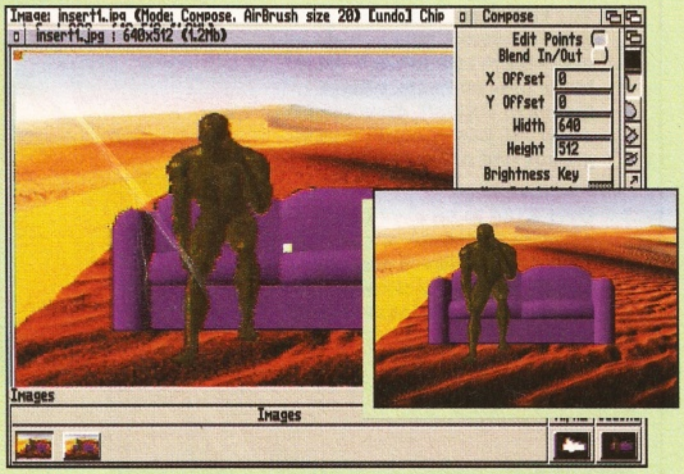
Combining two or more images



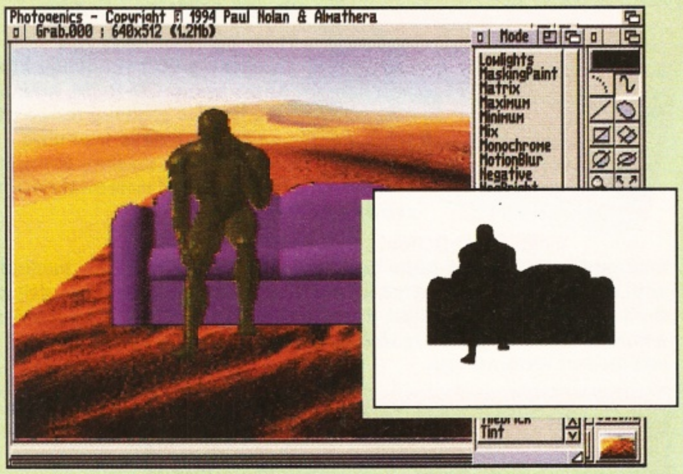
1 *First load two images, the image that is to serve as the foreground should be loaded into the secondary buffer. If you have an alpha channel, load it in too.*



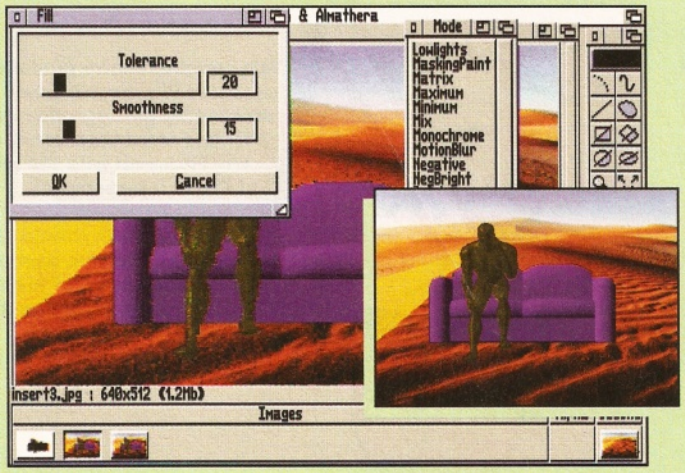
2 *Select Compose from the image menu. If necessary, move the handles that appear to resize your image, or enter the figures in the width and height gadgets.*



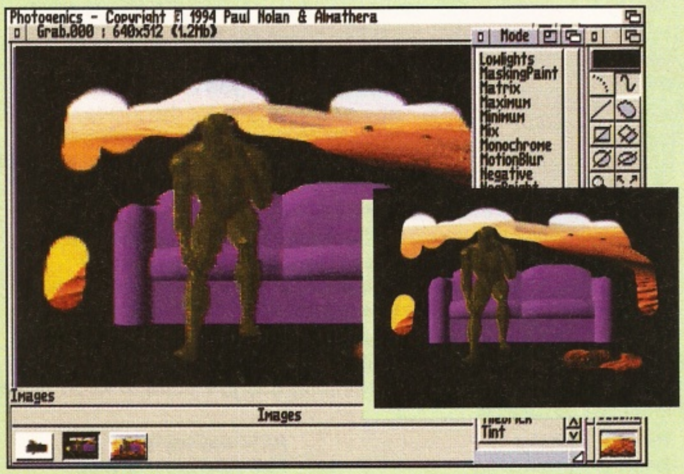
3 *Finally, click on Alpha Compose if you have an alpha channel and then on OK. If you do not have an alpha channel, then draw "through" the image with your right mouse button.*



4 *Alternatively, load your background image to the secondary buffer and your foreground alpha channel. Then apply the Rubthru mode to the whole image.*



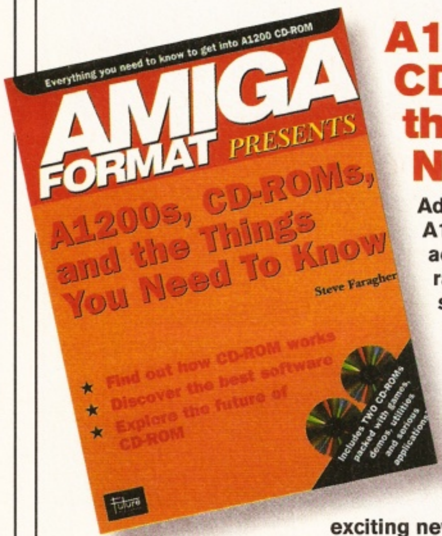
5 *If you have no alpha, but do have a solid area to show through, then use the Fill tool in Rubthru mode – if necessary change the tolerance setting.*



6 *Finally, if the worst comes to the worst, you'll have to draw through to your background using the Freehand tool – groan! However, it helps if you use the Masking Paint mode first.*

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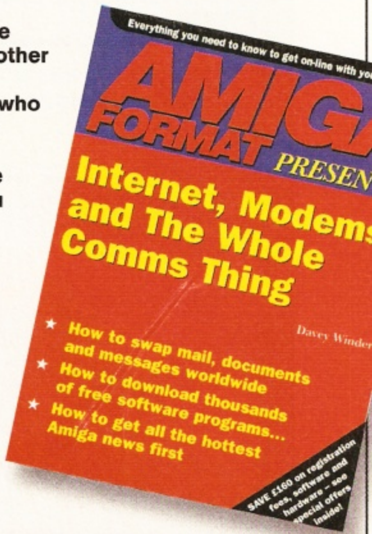
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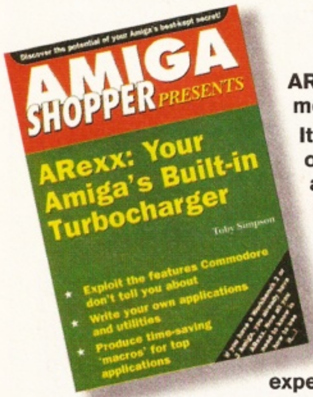
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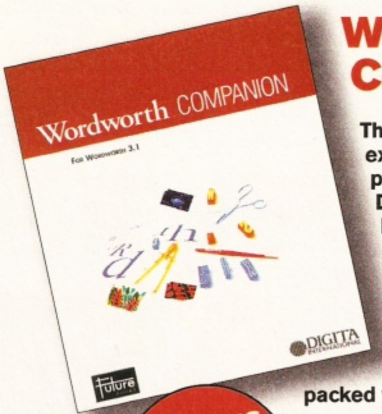
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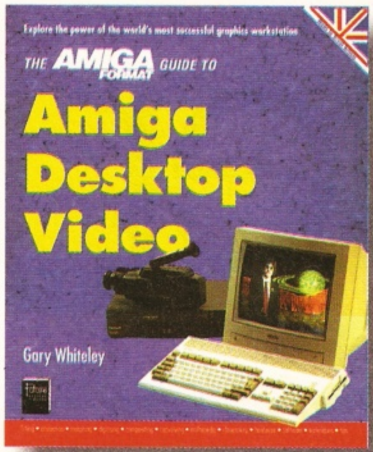
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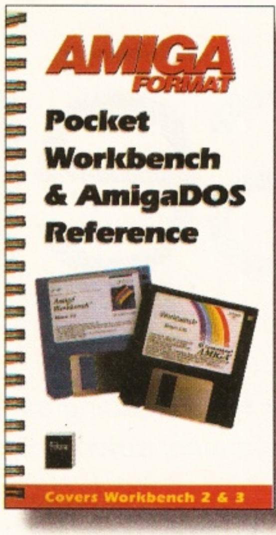
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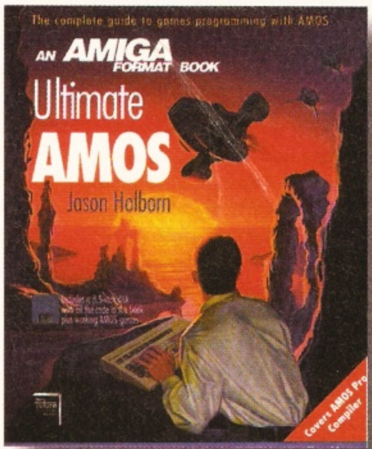
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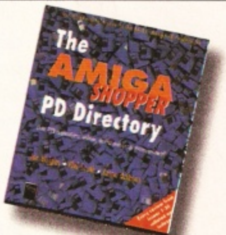
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Assembler

The Prequel

Direct hardware programming, or metal bashing as it is known, comes in many flavours ranging from multi-layer cakes with fancy decorations, down to sewerage. **Toby Simpson** *explains.*

I have always promised that one day I'll talk about hardware registers and all those exciting bits that do naughty things with your computer in some intricate manner. Well, here it is. During the past few months, we've introduced Assembly language slowly as a tool to get things done. Recently, we've worked with the Amiga Operating System to open windows, and show information on the screen.

With 99.999 per cent of all the programming jobs you'll ever want to do, this is the right way to do things. The Operating System is there to help you; to take as much of the actual work off your hands as possible. If you co-operate with it, then everything else will be co-operating with you.

Free of charge, you get a whole bunch of other advantages which come with a multi-tasking Operating System capable of sending information between tasks. I'm sure everyone who does anything remotely serious on their Amiga will agree.



However, and I must stress it is a very, very small however, there are some times, rarely, when a more direct approach is required. This sort of nasty arrives when the Operating System simply can't do what you are asking of it. If you happen to know that the computer is capable of the sort of results you require, there is a slight case for by-passing the Operating System entirely and getting right in there yourself, guns a-blazing.

It has taken me a lot of waffle to get to this point. The reason I lecture on about Operating Systems is that you get into an entirely different kettle of ball-games when you go straight to the hardware. One of these issues is compatibility. Should the machine be upgraded, your direct access methods could be crippled partially, not even work, or, even worse, crash the computer.

This sort of gung-ho programming caused massive problems when Workbench 2 first appeared and, then again, when the AGA chipset materialised. This mostly effected games and demos. Funnily enough, though, almost *all* of these compatibility problems could have been avoided with a little care and attention.

Programming the hardware directly is a dangerous thing to do – make no mistakes. In one sweeping move you can crash your Amiga, corrupt your hard drive and flush the memory of your computer. You immediately throw away the firewall which the Operating System puts up against particularly stupid choices, particularly with display issues. It requires care, an abnormal amount of patience and a desire to remember to back up your source code more frequently than you otherwise might.

Having said all of this, though, there is one more thing about programming the hardware directly. It *is* fun. A whole strapping bundle of fun, in fact, and one which we are going to dive into for the next couple of months.

A register or two



We understand registers, don't we? Registers are something we introduced back in the first exciting edition of this course. The 68000 Chip has a whole load of them – eight data, eight address and some other goodies as well.

Other Chips can have registers also, to control their operation. The catch is that since they are not built into the CPU, like D0 and its friends, we can't access them so easily.

Well, actually, we can. These registers map to physical memory locations, just like a normal byte of memory. And, again, just like a normal byte of memory we can read from it and write to it. Unlike normal memory, however, the effect of you doing this can be quite dramatic.

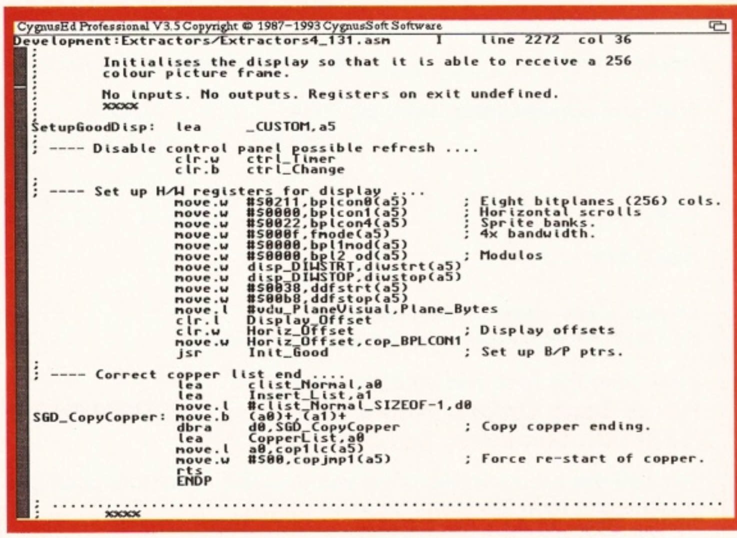
Some registers are read-only, which means that writing to them has no effect. As well as full read/write registers, there are write-only ones and others where the individual bits have different properties.

The Amiga contains a whole host of weird and wonderful Chips with registers in them and you can have fun poking around with them all. Let's crack off with a little bad programming:

```
    move.w          #-1,d0
    moveq #$00,d1
loop:       move.w    d1,$dff180
    addq.w          #$01,d1
    dbra  d0,loop
    rts
```

This is bad programming on truly biblical proportions, but it does get us started. There is nothing here that we have not used before; all standard, simple instructions. Indeed, the program *should* do nothing, because, after all, all it does is write an increasing number to the memory location $dff180, 65556 times and exit.

Type this into Devpac, assemble it and run it. Wow! Colours everywhere! And you've probably not been drinking either. Quite how long this program will last depends on the CPU you have. I get about half a second of weird colours before the program stops on my



```
CygnusEd Professional V3.5 Copyright © 1987-1993 CygnusSoft Software
Development:Extractors/Extractors4_131.asm     I     line 2272  col 36
;
;        Initialises the display so that it is able to receive a 256
;        colour picture frame.
;
;        No inputs. No outputs. Registers on exit undefined.
;        xxxx
;
SetupGoodDisp:  lea     _CUSTOM,a5
;
; ---- Disable control panel possible refresh ....
                clr.w   ctrl_Timer
                clr.b   ctrl_Change
;
; ---- Set up H/W registers for display ....
                move.w  #$0211,bplcon0(a5)      ; Eight bitplanes (256) cols.
                move.w  #$0000,bplcon1(a5)      ; Horizontal scrolls
                move.w  #$0022,bplcon4(a5)      ; Sprite banks.
                move.w  #$000f,fmode(a5)        ; 4x bandwidth.
                move.w  #$0000,bpl1mod(a5)
                move.w  #$0000,bpl2 od(a5)      ; Modulos
                move.w  disp_DIWSTRT,diwstrt(a5)
                move.w  disp_DIWSTOP,diwstop(a5)
                move.w  #$0038,ddfstrt(a5)
                move.w  #$00b8,ddfstop(a5)
                move.l  #vdu_PlaneVisual,Plane_Bytes
                clr.l   Display_Offset
                clr.w   Horiz_Offset            ; Display offsets
                move.w  Horiz_Offset,cop_BPLCON1
                jsr     Init_Good               ; Set up B/P ptrs.
;
; ---- Correct copper list end ....
                lea     clist_Normal,a0
                lea     Insert_List,a1
                move.l  #clist_Normal_SIZEOF-1,d0
SGD_CopyCopper: move.b  (a0)+,(a1)+
                dbra    d0,SGD_CopyCopper       ; Copy copper ending.
                lea     CopperList,a0
                move.l  a0,cop1lc(a5)
                move.w  #$00,copjmp1(a5)        ; Force re-start of copper.
                rts
                ENDP
;
; ..................................................................
;       xxxx
```

The Assembler routine used in the CD32 game Extractors to prepare for a 256-colour screen.

machine. So, what are we doing here? $dff180 is a special memory location. It is called COLOR00. It is a 16-bit, write-only register laid out like this:

```
0    R    G    B
```

Each character represents 4 bits. The least significant group is the Blue value for colour 0. Next along is the green, then the red. The most significant bits are meaningless currently and should be set to 0.

On a standard ECS Amiga, such as the A500 or A3000, this gives us a 12-bit colour system. 4 bits for each of the Red, Green and Blue content of a colour (0 to 15). Following from this, we can conclude that there are 12 bits of resolution, giving us a total of 4,096 possible combinations. There are 32 COLOR registers in the Amiga, running from $dff180 upwards.

Congratulations, you've just programmed the Amiga hardware directly. Gripping stuff, eh? Unfortunately, it is a complex subject and this month we'll only be able to introduce the basic concepts behind it. Next month, we'll knock up a program to display one of those famous pretty copper bars on the screen. (If you don't know what a copper bar is, don't worry. It just looks pretty!)

What it is all about

Direct hardware programming, or metal bashing as it is often known, comes in a few flavours ranging from multi-layer cakes with expensive decorations, down to sewerage. The trick is to avoid the latter. The degree in which you bypass the Operating System is very important. Early hardware programmers took over completely and it is this approach which leads to incompatibility and, what is more, it is totally unnecessary.

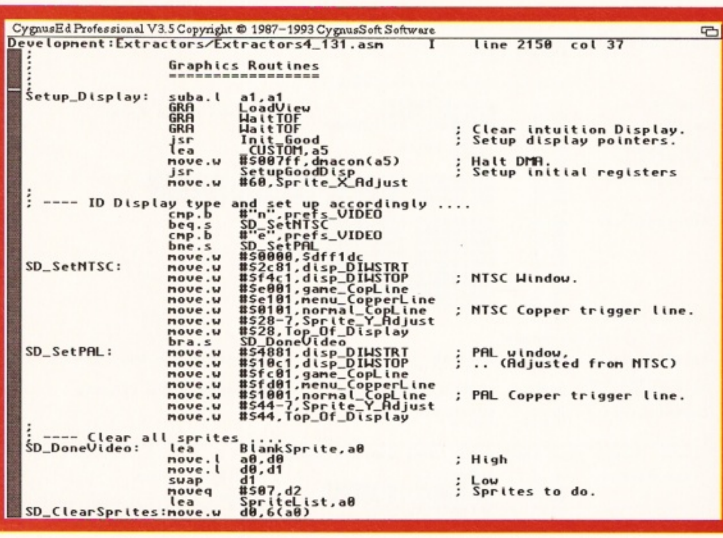
If you've played with the hardware before, you'll be familiar with two function calls in the exec.library, Forbid() and Permit(). These two disable and then re-enable multi-tasking respectively. You tend to find one at the beginning and one at the end. You don't need these at all.

There is no reason why you shouldn't get the performance and not kill the Operating System and you get benefits heaped in free. For example, you can still use dos.library to read files, which means your program will run off a hard disk. It is this which we will work on – getting cool effects and co-operating with the Operating System as best as we can.

What we'll do now is go through some of the basic concepts involved and then dive straight in. Firstly, we'll look at DMA and Interrupts. These are key-issues when you work with any computer system, not just the Amiga. PC-owners out there will be aware of the nightmare involved in setting up new sound cards with DMA conflicts, interrupt hassles and so forth.

The Amiga takes this problem away and shields users from the complexities of it. If you are programming the hardware directly, then you will need to use them. Then we'll move on to the whizzy gadgetry which makes up the Amiga custom Chips, including the blitter, copper and display hardware. Next month, we'll look at the audio stuff and play a couple of samples.

This is where we say goodbye to the Amiga screen display and plug in our own. Note the Operating System calls to graphics.library at the top of the listing. We are asking the Amiga OS to remove its display before we walk all over the hardware registers. We're polite in that way.



```
CygnusEd Professional V3.5 Copyright © 1987-1993 CygnusSoft Software
Development:Extractors/Extractors4_131.asm     I     line 2150   col 37
;
;                  Graphics Routines
;                  =================
;
Setup_Display:     suba.l   a1,a1
                   GRA      LoadView
                   GRA      WaitTOF
                   GRA      WaitTOF                ; Clear intuition Display.
                   jsr      Init_Good              ; Setup display pointers.
                   lea      _CUSTOM,a5
                   move.w   #$007ff,dmacon(a5)     ; Halt DMA.
                   jsr      SetupGoodDisp          ; Setup initial registers
                   move.w   #60,Sprite_X_Adjust
;
; ---- ID Display type and set up accordingly ....
                   cmp.b    #"n",prefs_VIDEO
                   beq.s    SD_SetNTSC
                   cmp.b    #"e",prefs_VIDEO
                   bne.s    SD_SetPAL
                   move.w   #$0000,$dff1dc
SD_SetNTSC:        move.w   #$2c81,disp_DIWSTRT
                   move.w   #$f4c1,disp_DIWSTOP    ; NTSC Window.
                   move.w   #$e001,game_CopLine
                   move.w   #$e101,menu_CopperLine
                   move.w   #$0101,normal_CopLine  ; NTSC Copper trigger line.
                   move.w   #$28-7,Sprite_Y_Adjust
                   move.w   #$28,Top_Of_Display
                   bra.s    SD_DoneVideo
SD_SetPAL:         move.w   #$4881,disp_DIWSTRT    ; PAL window,
                   move.w   #$10c1,disp_DIWSTOP    ; .. (Adjusted from NTSC)
                   move.w   #$fc01,game_CopLine
                   move.w   #$fd01,menu_CopperLine
                   move.w   #$1001,normal_CopLine  ; PAL Copper trigger line.
                   move.w   #$44-7,Sprite_Y_Adjust
                   move.w   #$44,Top_Of_Display
;
; ---- Clear all sprites ....
SD_DoneVideo:      lea      BlankSprite,a0
                   move.l   a0,d0                  ; High
                   move.l   d0,d1
                   swap     d1                     ; Low
                   moveq    #$07,d2                ; Sprites to do.
                   lea      SpriteList,a0
SD_ClearSprites:move.w   d0,6(a0)
```

Direct Memory Access

You've almost certainly heard of DMA and have a fair idea of what it does. For the un-initiated, DMA stands for Direct Memory Access. This is where other devices inside your computer, i.e. other Chips, can access your main memory (RAM) themselves, without the microprocessor interfering. DMA makes for blindingly fast hard disk controllers, because your processor can run at full whack and the hard disk controller spurts information directly into memory.

Unbeknownst to you, however, even when you sit staring at a 256-colour, AGA, 640x512 Workbench screen, slightly more than 16Mb of information are moving directly from your computers memory via DMA, through a whole bundle of custom Chips, to generate the screen display you are looking at.

The Amiga custom Chips use DMA extensively for the operations they perform. DMA is used for the floppy disk hardware, audio, blitter, copper and screen hardware. When accessing the Amiga hardware directly, you have total control over DMA. In one instruction you can disable the whole lot, blanking out the screen, cutting off the audio, and rendering your floppy drives inactive.

It is this sheer power you have that leads to disasters. Assembly language programmers are more likely to have more hideous crashes than those of higher level languages (such as 'C') just by the low level nature of the language. When you talk to the hardware directly, you expand this. You can easily accidentally program this hardware to blank out a 128K chunk of your memory faster than your TV can display one single scan-line of information.

Interrupts

Interrupts are just that. Interruptions. One minute you are doing one thing and someone taps you on the shoulder and asks you to do something else for a while. There are regular interrupts, such as coffee breaks (well, they are for me anyway) and ones which arrive at unpredictable times like the telephone ringing. And, of course, there are those which you can choose to ignore, and ones you can't; a call of nature, for example, or a great need to go to the pub for a spot of lunch and a pint.

Interrupts in computers are just like this. With normal programming on the Amiga (if there is such a thing as normal), you rarely need to access interrupts directly. When you move into the realms of games, demos and other hardware programming, suddenly they take on a whole new meaning and become vital.

The 68000 Chip supports two types of interrupts: maskable and non-maskable. Maskable interrupts can be disabled; you can choose to ignore them. Non-maskable are not ignorable. There are seven levels of priority in 68000 interrupts; a higher priority interrupt can interrupt a lower level one, but not vice-versa. Nothing can interrupt, or prevent, a non-maskable interrupt from being processed.

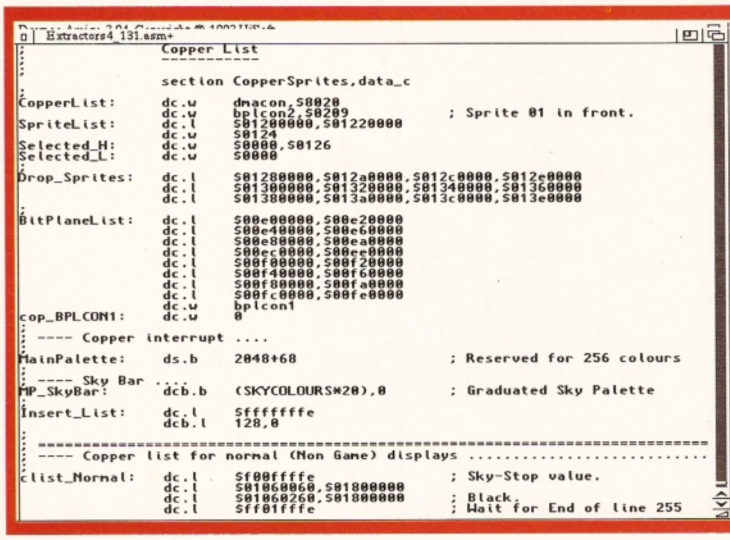


In a boring, old standard 68000 Chip, seven interrupts can be triggered; one for each of the seven interrupts, the latter being the non-maskable.

When one of these interrupts occurs, unless interrupts

74

"It is this sheer power you have that leads to disasters."



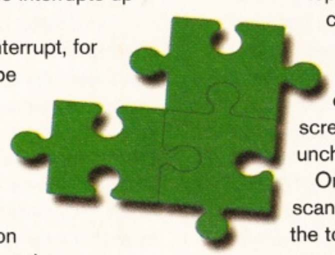
```
 Extractors4_131.asm+
;                   Copper List
;                   -----------
;
;                   section CopperSprites,data_c
;
CopperList:         dc.w     dmacon,$8020
                    dc.w     bplcon2,$0209             ; Sprite 01 in front.
SpriteList:         dc.l     $01200000,$01220000
                    dc.w     $0124
Selected_H:         dc.w     $0000,$0126
Selected_L:         dc.w     $0000
;
Drop_Sprites:       dc.l     $01280000,$012a0000,$012c0000,$012e0000
                    dc.l     $01300000,$01320000,$01340000,$01360000
                    dc.l     $01380000,$013a0000,$013c0000,$013e0000
;
BitPlaneList:       dc.l     $00e00000,$00e20000
                    dc.l     $00e40000,$00e60000
                    dc.l     $00e80000,$00ea0000
                    dc.l     $00ec0000,$00ee0000
                    dc.l     $00f00000,$00f20000
                    dc.l     $00f40000,$00f60000
                    dc.l     $00f80000,$00fa0000
                    dc.l     $00fc0000,$00fe0000
                    dc.w     bplcon1
cop_BPLCON1:        dc.w     0
;
; ---- Copper interrupt ....
;
MainPalette:        ds.b     2048+68                   ; Reserved for 256 colours
;
; ---- Sky Bar ....
MP_SkyBar:          dcb.b    (SKYCOLOURS*20),0         ; Graduated Sky Palette
;
Insert_List:        dc.l     $fffffffe
                    dcb.l    128,0
;
; ======================================================================
; ---- Copper list for normal (Non Game) displays .........................
;
clist_Normal:       dc.l     $f00ffffe                 ; Sky-Stop value.
                    dc.l     $01060060,$01800000
                    dc.l     $01060260,$01800000       ; Black.
                    dc.l     $ff01fffe                 ; Wait for End of line 255
```

The start of a copper list for a computer game. It is possible to program the copper in Assembly language, but it is sufficiently simple for most people to be able to program it directly in this manner.

73 are disabled in some manner, the 68000 Chip will stop executing the current program and save all registers to the stack. It then goes into supervisor mode and runs one of seven programs depending on the interrupt.

The addresses of these programs are stored in the long words from $64 to $7c. The appropriate address is read out and called. The conventional way of getting control of interrupts is to write into these memory locations. This is bad. It is bad because the Amiga subdivides each of these interrupts up (to give 15 in total).

The third level of 68000 interrupt, for example (called Level 3), can be triggered for one of three reasons: the graphics co-processor (copper) has caused it; the vertical blanking period has just begun (this is when the electron beam on your monitor goes from the bottom right back up to the top left – on a TV this happens 50 times a second); or because the blitter Chip (see later) has finished an operation.



Normally, the Operating System handles all of its requirements for these interrupts. You can ask the exec.library for usage of an interrupt. This is the *right* way of doing it and you suffer bugger all (excuse my French) in the way of performance loss for doing it. It is not clever to write to these vectors directly. Not only do you achieve nothing, but you cut off the life-support to some very important system tasks, such as those which ensure your hard disk works okay.

To harp on a little longer, if you have a 68010 Chip or above, all these interrupt vectors (called autovectors) can actually move around. Nasty, eh? A whole new register, called VBR (Vector Base Register) dictates where these, and numerous other 68000 vectors, sit in memory.

The Amiga OS people wanted to move these vectors into Fast RAM with Kickstart 2.04. They couldn't, because 95 per cent of games stopped working simply because they didn't take the VBR into account. Allocate your interrupts through the OS and this won't be a problem to you. Program defensively; it pays off.

Amiga Video Hardware

The Amiga Video Hardware is a complex beast. Unfortunately, there is not enough space in this magazine to explain it all, so we'll pile through it at great speed and then explain more as we need it when we start writing some direct hardware access programs next month.

OK, brains on standby. When you look at your screen, you look at a cathode ray tube. This ancient piece of technology basically involves a beam of electrons scanning from left to right, top to bottom over a glass screen coated in phosphor which glows when hit with electrons. By turning this beam on and off rapidly, you can draw pictures on the glass screen. This procedure has remained unchanged for nearly 50 years.

On a conventional TV, there are 625 scan-lines. The electron beam starts at the top, goes across one line and then sweeps back to the start of the next line. This sweep is called the horizontal blanking gap. When the beam gets to the bottom right, it goes all the way back up to the top and starts again. This is called the vertical blanking gap and on a TV it happens 50 times a second.

Imagine this; your Workbench screen is 640 pixels across, 256 lines down and is two colours – black and white. If you view this on a TV, this screen will be refreshed 50 times a second in order to keep the image stable. In order to store 640 pixels, in two colours, you require 640 bits of memory. Each bit represents a pixel, either on or off for the two colours. 0 is black, 1 is white. 640 bits is 80 bytes. 256 lines means you need 256x80 bytes, or 20,480 bytes of memory to store the display.

A single sheet of this kind on the Amiga is called a bitplane. When you overlay two bitplanes over the top of each other, you suddenly get four choices of colour, because for every given pixel, there is another pixel for the same position in the other bitplane. By the power of binary, this gives us four combinations: 00, 01, 10 and 11.

Three bitplanes gives eight combinations, four gives 16. The AGA chipset allows eight bitplanes, giving a whopping 256 colours on a screen. However, work it out. One bitplane is 20,480 bytes – eight is over 160K. If your Workbench screen is 640x512, in 256 colours, that is over 320K of memory used just to store the picture you are looking at. If you open a few programs, each having a screen, it is easy to see how a few megabytes can vanish in seconds, without you typing one letter into a word processor.

On the Amiga, all data which is accessed by the video hardware, such as bitplanes, has to be in Chip RAM. You don't get many 640x512 256-colour screens in 2Mb of Chip RAM, as you may have discovered! The Amiga custom Chips have registers which point to where the bitplanes are stored in Chip RAM. You have to ensure that these are re-set to point to the start of the bitplanes for the beginning of each frame.

The more alert amongst you may be thinking "Hey, let's use that vertical blanking interrupt". Full marks. You could! You could write a small routine which hung off the Amiga vertical blanking interrupt. This happens as the electron beam is scanning back up, ready for another sweep, so it is an ideal time to re-load the bitplane registers. This would work, but the Amiga custom Chips contain a gadget which wipes this out as a problem.

The copper co-processor is a small computer inside your computer. The copper is a microprocessor, just like the 68000. Unlike the 68000 Chip, however, which has more instructions than you can shake a stick at, the Copper has only three.

At the start of every new frame, the copper program (called a copper list) is run automatically. Copper lists can do three things. They can wait for the start of any measurable position of the electron beam and they can move information into custom Chip registers. You can write a copper program, for example, which refreshed your bitplane pointers every frame.

Remember that $dff180 program we used earlier? You can write a copper list which waits for the start of each individual scan-line on your display and then changed the colour slightly. The result would be a stable pattern of colours. These can be animated to produce stunning effects, commonly used in games and demos. Since the copper can access any register, you can actually perform effects like changing the screen resolution from 320 pixels on a line to 1,280 pixels on a line whenever you feel like it.



Games occasionally use this to give high-resolution control panels at the base of the screen with a lower resolution play area above. The speed of the copper allows you to change 32 colours of a palette *every* scan-line. (That is 8,192 colours displayed on a two-colour screen.)

Bored?

That's enough talk. Money-where-mouth-is time. We've looked at the basic concepts this month. Next time around we'll launch off by writing our own display-routine, demonstrating smooth screen scrolling, obscene amounts of colours and the odd sound effect. Hey, it's the summer season. I'll even throw in a few cheery sound-effects on to the Coverdisk. ■

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DICE Part 4

"If you recognise that you will make errors, then you'll be better at both preventing them, solving them and learning from them." **Toby Simpson** *talks about debugging.*

Debugging is a pain. If computers are so amazingly clever, why can't they do it themselves? The problem arises from the fact that computers have an unfortunate weak link. That is the humans that use them. Computers don't make mistakes when operated under correct environmental conditions (i.e. it's not too hot or cold). The errors they *do* make are all down to errors made by humans, either when they designed the machine, or programmed it.

We are fallible. *We* make mistakes. Being aware of this solves half of the problem immediately. If you recognise that you will make errors, then you'll be better at both preventing them, solving them and learning from them. This amazing lecture in human nature isn't all just because I feel like it, it has a programming link. Bugs, of course. And that is where we left DICE last month.

Debugging, however, is still a pain. The trick is to make it as painless as you can, which you can do in a couple of ways. The first way is to program defensively in the first place. Take the minimum of risks, document everything, think before you type and use a little care. The second is to use the right tool to help you find a problem if it should occur.

There are numerous tools out there which can assist you in tracking down problems. One of these beauties is the Enforcer/FindHit combination (see box-out). Since this is after all a DICE tutorial, we shall be having a slightly closer look at the DICE debugger, using our Finder application as source material. The latest version, together with a compiled executable, can be found on this month's Coverdisk.

The DICE debugger is called DD. We introduced it last month and showed how we can step through our programs a line at a time looking at exactly what is happening. Should we want to, we can get right down to the actual Assembly language which the compiler generates.

As I said last time around, DD certainly isn't going to win any awards for best debugger of the year. It is slow and it is easy to get into trouble with it. Being aware of the problems allows you to use the program within its limits to assist you in finding problems.

Enforcer and FindHit – a match made in Heaven

If you own an A3000, or have an accelerator of some kind in your Amiga, you may have an MMU. MMU stands for Memory Management Unit and it does just that. From a programming point of view, it allows you to know when certain areas of memory are accessed.

Enforcer is a tool which traps illegal memory accesses by your program. You have to own an MMU to use it, but it is out there free on most BBSs, the Internet and from all good PD libraries. When something goes wrong, an "Enforcer Hit" is generated, giving lots of useful information as to what caused the illegal memory access. One of these bits of info tells us which task in the Amiga was responsible for the crime and where in that program it happened.

Enter FindHit. If you compile your program with loads of debug information, FindHit can tell you exactly which line in your original source file caused the hit! You just tell FindHit the name of the executable and the information provided to you by Enforcer, and away you go. Invaluable!

If you can even find one bug with it which would otherwise have subjected you to days of painstaking manual work, then it is worth the price of getting to know it.

Breakpoints

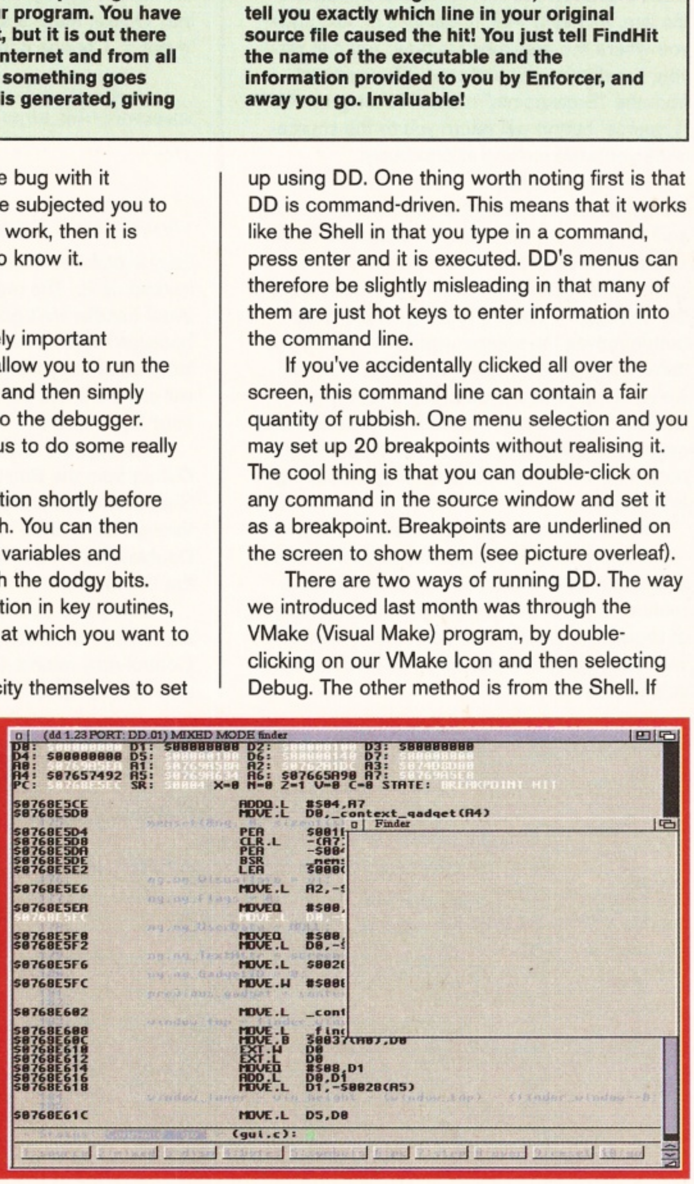
Breakpoints are an extremely important debugging concept. They allow you to run the program until a given point and then simply stop. Control then returns to the debugger. This little operation allows us to do some really neat things:

- Stop program execution shortly before we know it is going to crash. You can then check the values of certain variables and perhaps single-step through the dodgy bits.
- Stop program execution in key routines, or at points in the program at which you want to check certain values.

Breakpoints are simplicity themselves to set up using DD. One thing worth noting first is that DD is command-driven. This means that it works like the Shell in that you type in a command, press enter and it is executed. DD's menus can therefore be slightly misleading in that many of them are just hot keys to enter information into the command line.

If you've accidentally clicked all over the screen, this command line can contain a fair quantity of rubbish. One menu selection and you may set up 20 breakpoints without realising it. The cool thing is that you can double-click on any command in the source window and set it as a breakpoint. Breakpoints are underlined on the screen to show them (see picture overleaf).

There are two ways of running DD. The way we introduced last month was through the VMake (Visual Make) program, by double-clicking on our VMake Icon and then selecting Debug. The other method is from the Shell. If ▶ 78



Using a breakpoint to stop the Finder whilst we are setting up gadgets.

77 ▶ you open a Shell and use the 'cd' command to move to the directory where your Finder source code and program are typing...

```
dd finder
```

...will also run the debugger. Now it is time to run the debugger. You will need to make sure that the compiler generates lots of additional information with the program for the debugger to be useful. This can be done by selecting Options off the Edit menu of VMake. Turn the 'Debug Level' cycle gadget round until it shows 'Full'.

Let us imagine that there was a bug in the gadget creation code and that buttons were appearing in the wrong place. The easiest thing to do is to set a breakpoint just before the gadgets are created and then when the breakpoint happens, single-step through from there, watching what is going on.

Scroll down using the slider to the line in 'gui.c' which reads:

```
context_gadget =
CreateContext(&first_gadget);
```

Double-click on the line number at the start of the line. All being well, underlines should show you where the breakpoint is now. You can view your breakpoints by selecting "Breakpoints" from the "Breakpoints" menu. Pressing on the '1:source' button will return you to the source-code you were looking at previously.

Now our breakpoint is set, press on the '10:go' button at the bottom of the DD window, and the program will start. The standard Finder window will open and then stop there before gadgets are added. Control is now back firmly in the debugger's court. Pressing on the '6:pc' button moves the source window to where the current line of code being executed is. Since we've stopped at a breakpoint, this is where we'll end up. We can now look at the code and memory involved and either click on the '9:go' button to resume, or continue single-stepping from here.

We've demonstrated a once-off breakpoint – you use it to get somewhere quick. You can also use regular breakpoints – those inside a routine which is called more than once. This sort of breakpoint would have been handy when I was debugging the recursive File Finder routine in 'search.c'.

Getting the full version of DICE

On the March Coverdisk we gave away a special version of DICE 3. Obviously the authors of DICE wouldn't make much money if we gave away the whole product, so it was especially cut down. It has the following limitations:

- **You can't use bitfields or floating point.**
- **The maximum executable program size is 40K.**
- **Each source file can only have up to four functions in it.**
- **You can't use this version of DICE to generate commercial applications, or for work purposes. It is for the private home usage by Amiga Shopper readers only.**

If you're getting into this now and fancy the entire product, together with a 450 page manual (which is hard reading and leaves a little to be desired), at a fantastic *£30 off the retail price*, then you can obtain it from the Amiga Shopper mail order on page 34.

You can also get it from the UK distributors, Fourth Level Developments:

Fourth Level Developments, 31, Ashley Hill, Montpelier, Bristol, BS6 5JA, England
Tel: 0117 955 8225 Fax: 0117 955 9157
E-Mail:
dicecsales@flevel.demon.co.uk (For sales)
dicecinfo@flevel.demon.co.uk (For general info)

You'll need a full version to make use of the revision control system and, also, without it you are limited to four functions per file, which could result in some cut 'n' pasting with the Finder application!

Trying it out

With any debugger you have to get used to the general basics. Spend a fair while using DD with the Finder source since, to the best of our knowledge, there are no serious bugs in it, so you should be able to experiment without worry.

In the meanwhile, let's introduce a bug and then find it quickly. Load the Finder project into VMake. Make a small change to line 45 of 'event.c'. Change it from...

```
window_signal = 1L << finder_window->UserPort->mp_SigBit;
```

...to:

```
window_signal = 10L << finder_window->UserPort->mp_SigBit;
```

Easy mistake to make. We've typed 10L instead of 1L. The result of this will be that the event handler isn't going to work properly because the window signal mask will be incorrect. Funny thing, though, is that CTRL-C will still work and sometimes ARexx works. Odd bug! A job for DD.

Load up the debugger by selecting Debug from the Run menu. Then simply hold Shift down and press the down arrow to go through the source until you get to 'event.c'. Double-click on line 61 to add a breakpoint at the Wait() line.

Now we're cooking. Press the 'go' button and wait till the breakpoint is reached. Control now returns to the debugger. We are now able to either single-step through and see what happens, or look at a few of the symbols and see what they contain.

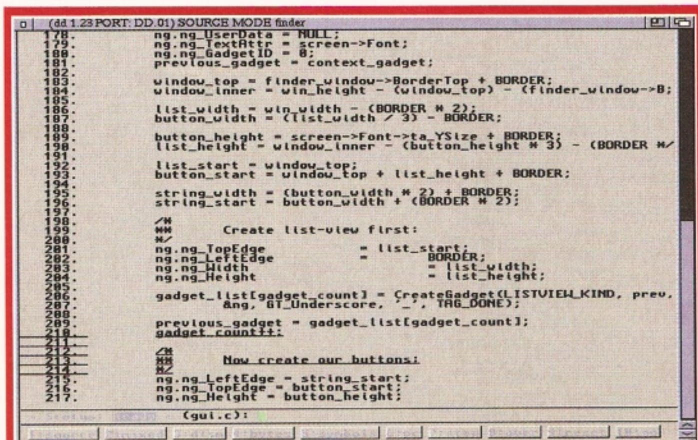
We know that the signal mask for the window should be a binary 1, shifted left a set number of times to make a proper signal mask for Wait(). A brief check of both the number which is coming out of the window structure and the result after the calculation will reveal that the answer is wrong. This line therefore contains the error.

The problem with debugging is that you need to know roughly where the problem is in order to stand a chance of finding it. DD is not magic; you can't run it and expect it to do the work for you. In the case of the above bug, we knew that suddenly all window-clicks had stopped working and yet CTRL-C continued. This indicated something wrong with the window-code in the event handler.

With something this obvious, a brief check of the source in that area should reveal the problem. But at least we knew the approximate whereabouts of the error, which obviously helped with the speed of finding it and our choice of initial breakpoint and symbol examining.

That's enough debugging for anyone to stomach in one month. Next time around we'll finish off a few loose ends and amaze and astonish you with just how unreadable C programs can be, including one incredible several-line program which produces the entire "12 days of Christmas" rhyme seemingly from nowhere.

Stay tuned – you know it makes sense! ■



Setting a breakpoint in the DICE debugger by double-clicking on a command.

On the Coverdisk

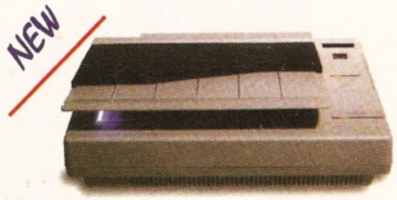


This month, the Coverdisk contains the full Finder application. All the source files are provided, along with the VMake configuration file. Current users of DICE can simply double-click on this to get started. For those of you who are interested in seeing what we've been up to for the last six months or so, but are not following the programming course, check out the executable program "Finder". This comes complete with a very poorly drawn icon indeed.


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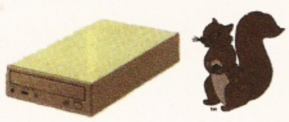
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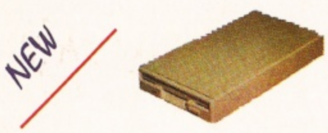
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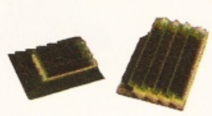
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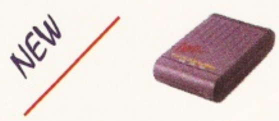
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Fidonet

Taking a much closer look at Fidonet and how to make the transition from using an off-line reader to becoming an actual Fidonet Point, **Darren Irvine** *looks at setting up Pointing software on your Amiga.*

One of the most commonly asked questions on Fidonet is how to go about making the transition from using an off-line reader to becoming an actual Fidonet Point. There are two main aspects of this procedure and in this month's Comms tutorial, I will carefully go through them for your benefit.

The first is simply asking the SysOp of the BBS which you have been using to set you up as a Point at their end, so that when you get your own software configured correctly everything will work as expected. Most SysOps will be only too happy to add another Point to their system, but remember not to hassle them too much since the service they are providing in letting you Point from their BBS is a privilege, not a right.

Your SysOp will provide you with three pieces of information that you will need during your Point set-up – your own Fidonet address, the telephone number to call when you are polling for mail and your password. Note that in Fido-speak, the BBS now becomes know as your "Boss" node.

Installing the software

1. Downloading and unarchiving

Presuming you have been given the go-ahead by your SysOp, the next stage is obtaining the necessary software. In fact two pieces of software are needed – one to actually send and collect your Fido mail and another to handle the organisation of the different echos and other ancillary processes, such as handling signatures and origin lines.

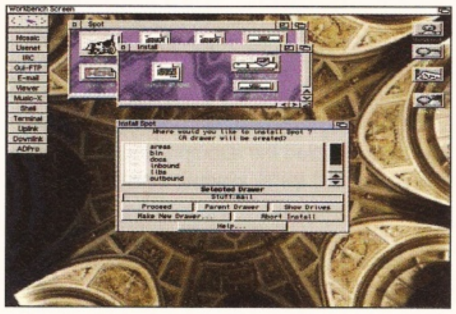


Fig. 1 – A standard Install window.

Note that although it is indeed possible to set Pointing software up to run of a floppy-based system, it will be of more benefit to owners of Hard Drives and so I have assumed the presence of a hard disk in the following example set-ups. In general there is only one choice as far as each of these are concerned.

The first program you will need is called Trapdoor and is an extremely comprehensive piece of shareware. The second (and in some ways *more* important) is called Spot and both these systems should be available from almost all BBS systems that cater for Amiga files. The current incarnations of these two programs are 1.84 for Trapdoor and 1.3a for Spot – the actual filenames are...

```
TD_1_84.LHA
```

...and...

```
SPOT13A.LHA
```

...although these may vary from board to board – check your local file list or ask your SysOp for details if you have any problem finding the files.

Actually setting these two programs up is simple – if you've done it before. There are a huge amount of parameters which can be altered – most of which you don't *have* to alter and setting it up for the first time can seem daunting. Setting it all up the second time is a

▶ 82

TRAPDOOR.CFG configuration commands

Create a file TRAPDOOR.CFG in your MAIL: containing commands similar to the following – note that you should of course replace the Fidonet address, password and phone number shown with your own address and password and the number of your own Boss node.

NODE 2:443/13.17	**This is your Fidonet address.**
NAME "Disaster Area"	**This is a name you give to your system.**
SYSOP "Darren Irvine"	**Your name.**
PASSWORD "******"**	**Your password.**
BAUD 38400	**The max speed your serial port can handle.**
BOSS 2:443/13.0	**Your Boss Fidonet address.**
CALL 274919	**The phone number to call.**
OUTBOUND "Mail:Outbound"	**The directory to find outgoing messages.**
INBOUND "Mail:Inbound"	**The directory in which to store incoming messages.**
LOGFILE "Mail:TrapDoor.Log"	**Location of the log.**
MODEMINIT "~AT|~~" **MODEMHANGUP "||^|"** **MODEMDIALPRE "ATDT"** **MODEMDIALPOST "|"**	**These are the defaults for my Sportster 14k4 modem. There is a help file with Trapdoor which will help you find the exact settings for your own modem.**
SERIALNAME "serial.device" **SERIALUNIT 0** **SERIALFLAGS 0**	**Standard serial configuration.**
SHARED **DSR** **7WIRE**	**More standard modem type set-up commands.**
LOGWINDOW 30/15/580/133 **STATWINDOW 30/155/580/93** **SCREENMODE ACTIVE** **NOBACKGROUND** **AUTOOVERSCAN** **COLORS 2560/4095/10/160**	**These commands determine the way in which Trapdoor opens up its display windows. This configuration is for fairly quiet colours in windows opened up on SPOT's own screen.**
RETRIES 99	**Number of times to retry a call.**
REDIALDELAY 20	**Delay in seconds between call re-tries.**

lot easier, but most people luckily don't have to do this – only those like me who have had their hard disks dropped on to concrete floors by other Amiga Shopper writers (thanks John).

The next thing to do is to create a top-level drawer called MAIL and make an assignment to this directory in your s:user-startup file. Underneath this MAIL directory create three more drawers called respectively INBOUND, OUTBOUND and AREAS. Use LHA to unarchive the Trapdoor archive to MAIL: At this stage, SPOT should be unarchived to a temporary location such as RAM:

2. Running the SPOT Installer

Once you have successfully unarchived SPOT, open the drawer in which the SPOT files have been created and locate the drawer marked "Install". Next, select the appropriate Install icon, depending on which version of Workbench that you are running (either 2.0 or 2.1+).

Note that if you are running Workbench 2.1 or higher you will also be given a choice as to which language you use to install Spot. When you have selected the appropriate icon, you will see a standard Install window similar to **Fig 1** on page 81.

When you are asked for a directory in which to install Spot, select the MAIL: directory that you have just created. For the rest of the Install script, just accept the default values by clicking on "Proceed" until the installation is complete.

3. Configuring Trapdoor

Although installing Trapdoor is almost as simple

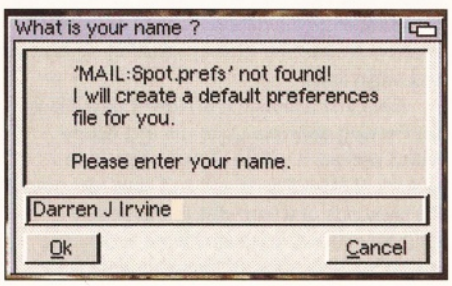


Fig. 2 – Set up some basic information.

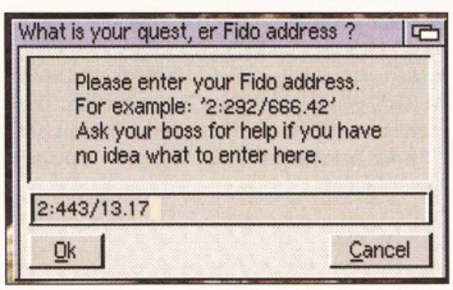


Fig. 3 – Enter the name you want Spot to use.

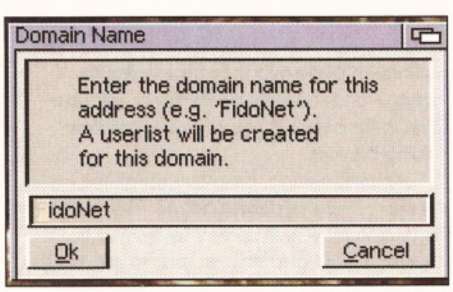


Fig. 4 – Enter your Fidonet address.

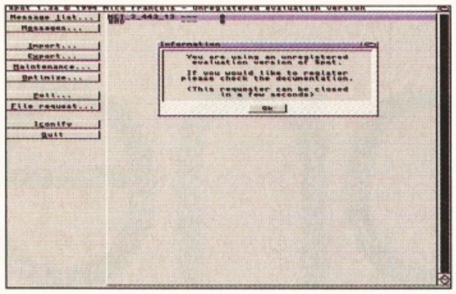


Fig. 5 – The Spot screen running on your system.

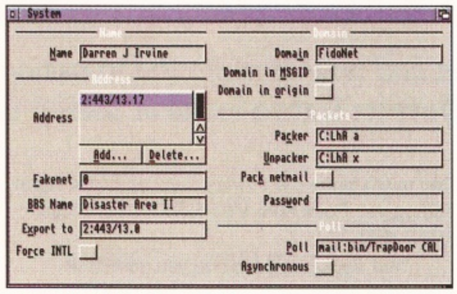


Fig. 7 – Make sure your details are set up correctly. The text in "Poll" should read like this.

as unarchiving the files to the correct place, there is one more important step and that is setting up a TRAPDOOR.CFG configuration file. Some trapdoor archives come with a series of example configuration files, but for the most part these contain many commands that you don't need and which can confuse things somewhat.

The confusion is because Trapdoor is an extremely versatile program and can be adapted to do a lot more than simply handling the outgoing calls required by Point software like Spot. However the commands you *do* need are quite straightforward and you can create a TRAPDOOR.CFG file yourself in the MAIL: drawer containing the commands shown in the boxout named TRAPDOOR.CFG configuration commands on page 81.

4. Running Spot for the first time

When you first click on the installed Spot icon (in the MAIL:SPOT drawer) you will be taken through another short installation sequence in which you will set up some basic information required by Spot – see **Fig. 2**.

In the first requester, you should enter the name which you want Spot to use when sending your mail – see **Fig. 3**.

Next, you should enter your Fidonet address which was assigned to you by your SysOp – this is the same address as was entered in the Trapdoor configuration file – see **Fig. 4**.

Next, enter the actual domain name which you will be using – this will almost always be Fidonet, unless you are using Spot solely on one of the other Fido-type networks such as Barnet.

Once you have completed this simple installation procedure, you will see the Spot screen running on your system for the first time looking similar to **Fig. 5**.

The OK requester (which you will see every time you run Spot) reminds you that you are running the evaluation copy of Spot and that you should register if you indend to keep on using Spot – details on how to register are included

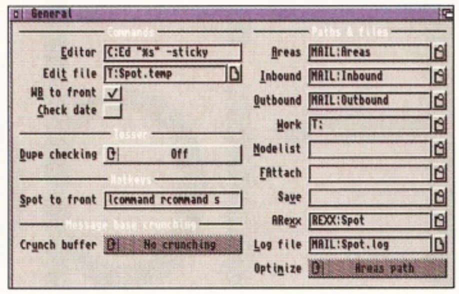


Fig. 6 – The values should be set up like this.

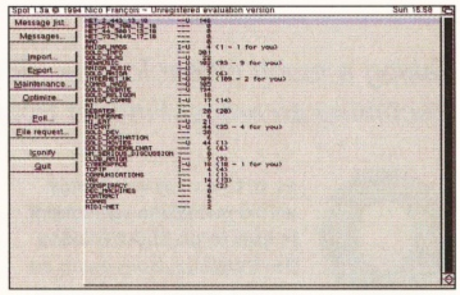


Fig. 8 – You can also change the fonts that are used by Spot. This is what mine looks like.

with the rest of the Spot files. The requester remains on screen for about 10 seconds, no matter how many times you click on "OK".

5. Configuring Spot

When you finally get the nag box to disappear, you will have to set up a few things in the various Spot configuration windows – selected from the "Settings" menu. Firstly, select "General" and make sure the values you have are set up like **Fig. 6**.

Next, select "System" from the settings menu and make sure your details are set up correctly – note that the text in the field "Poll" should read like this... (See **Fig. 7**.)

```
mail:bin/TrapDoor CALL BOSS.
```

You can also change the fonts that are used by Spot and finally come up with a screen that you find pleasant to the eye – the Spot system that I use myself looks like **Fig. 8**.

6. Getting started

Once you have completed the installation and configuration of Trapdoor and Spot, the next thing to do is to actually try sending a Netmail message to your Boss node. The following examples are geared towards the fact that my own Boss node uses the GECHO on his PC to handle communications with Points. If your own

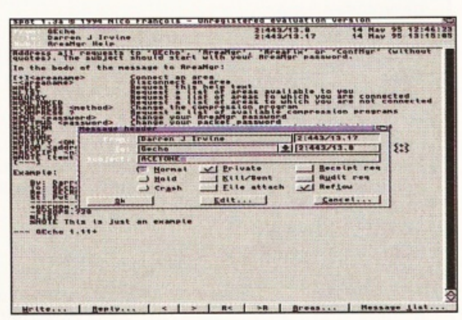


Fig. 9 – When you exit the Editor, you'll see a screen with a message header requester.

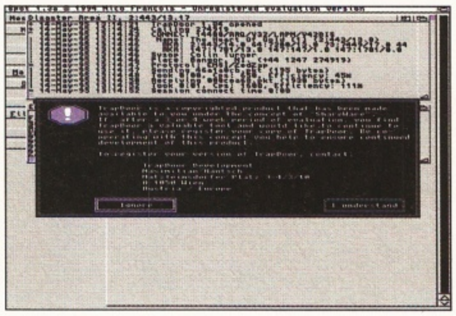


Fig. 10 – Trapdoor will also collect any mail which is waiting for you.

Boss uses a different system, you will need to slightly modify the commands shown, but in general the principle will be the same.

7. Getting your Boss node help file

The first thing you should do is send a help request message to the echo handling program running on your Boss node's system. On Spot's area screen, click on your Netmail area – this is the one that will look like...

```
2_443_13_17
```

...or similar. You will then see the message screen for this area, which will be initially blank. Click on "Messages" to pull up the similarly blank message screen. Click on the "Write" button and if all is well your default Editor will be invoked. If your Boss is using GECHO, type...

```
%HELP
```

...and exit the Editor. If GECHO isn't being used, ask your SysOp for the correct syntax to use. When you exit the Editor, you will see a screen with a message header requester like **Fig. 9**.

Fill in the name of the echo handler in the "To:" field – in this case GECHO and enter your Boss node's Fido address. In the "Subject:" field, enter the password which you have agreed on with your SysOp and then click on the OK button.

Now, click on "Areas" to return to Spot's main screen. To actually send the message, click on "Poll". A requester will appear offering you the chance to "Export" your messages or quit – select export. Spot will then transfer control to Trapdoor which will call the number contained in the TRAPDOOR.CFG file and send any mail which you have exported – in this case the help request.

Trapdoor will also collect any mail which is waiting for you, which in this instance will be the help file that you have requested (note that some systems require a small amount of time to prepare a help file and you may have to poll twice to actually get the file sent back to you). See **Fig. 10**. Since Trapdoor is also a shareware program, it pops up a nag requester after completing the call to your Boss node.

8. Reading your mail

After Trapdoor has completed the call, click on "Import" to bring the files into the appropriate areas in Spot. The main Spot Areas screen will then show any new messages that you have been sent. See **Fig. 11**.

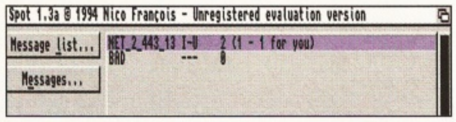


Fig. 11 – Any new messages will be shown.

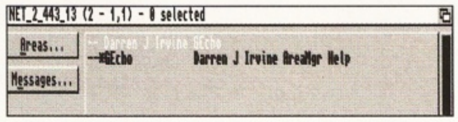


Fig. 12 – Click on Netmail again and both the message that you sent and the reply are shown.

Click on your Netmail area again and you will see that this time both the message that you sent and the reply are shown as in **Fig. 12**.

Clicking on any of the messages will display the text of that message, scrollable using the cursor keys. See **Fig. 13**. If you've got this far, you have successfully installed Spot and are ready to start using the Echomail areas of Fidonet.

Again the exact command needed to join an echo will depend on the program being used at your Boss node and the syntax of these commands will be contained in the help file which you have (hopefully) now been sent. For GECHO the general format of the command used is...

```
%JOIN echoname
```

...where "echoname" is the actual name of the area which you wish to use. After joining any given echo, actually sending mail uses the same procedure as for Netmail.

Remember though that where Netmail is a private one to one system, any message you post to an echo (no matter who you address it to) can be read by anyone else subscribing to that echo.

It probably won't take you long to see the advantages of using a system such as Spot over a conventional OLR – for a start, you actually have your own Fidonet address now. If you manage to get things working OK and have any more queries about Spot, you can Netmail me at:

```
2:443/13.18
```

Or send your E-mail to:

```
darsy@spuddy.mew.co.uk
```

Hopefully, however, you won't have to since Spot is user-friendly enough for most people to get to grips with without too many problems. ■

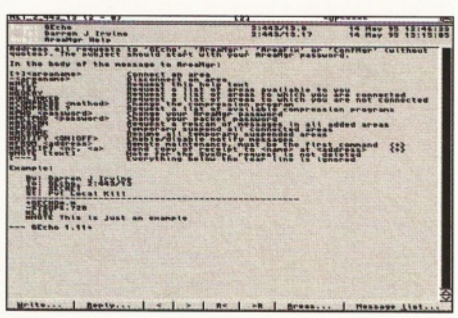


Fig. 13 – Clicking on any of the messages will display the text of that message.

Public Domain

Jason Holborn *wades through another glorious mountain of quality Public Domain in search of the very best of the latest and greatest in free software.*

Public Domain is a wonderful thing for people on a low budget, or for people who like to experiment with new programs without having to pay the earth for them. I must say that the quality of PD and shareware has improved vastly in the last few years and as for the quantity, I could build myself a PD swimming pool with all the disks you send me every month. But I am not really complaining – keep them coming!

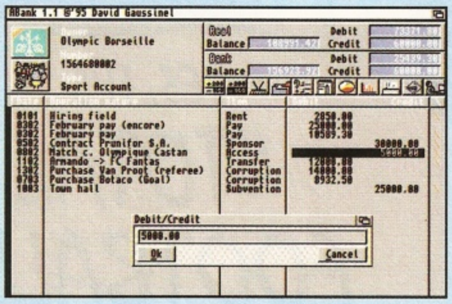
Abank 1.1

17 Bit Software

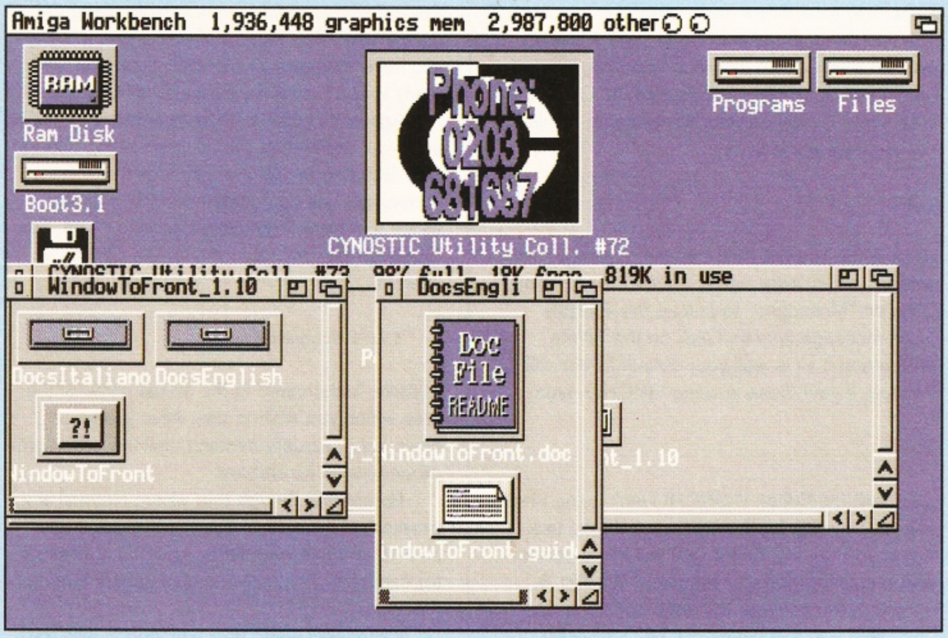
Following our review of Abank in issue 43 of Amiga Shopper, we received this update direct from the author which promises to deliver even greater control over your money.

For those of you that missed our original review, Abank is a program that lets you keep track of your finances using a format similar to a traditional bank statement. Like those depressing slips of paper that the bank regularly sends you, Abank shows a list of all your transactions displayed in date order with the amount of each transaction listed in either the debit or credit column, depending on the transaction type.

The basic idea is that, providing you keep the program informed of all your transactions, you should be able to discover the state of your finances almost instantly, without having to contact the local branch of your bank. Like all good home accounts packages, Abank can load up to 10 separate accounts simultaneously, so there's no reason why you can't work on your



Get your finances under complete control with David Gaussinel's brilliant Abank home accounts package.



Do you sometimes feel as if you're being watched? Look closely in the Workbench titlebar and you'll see two little eyes that watch your mouse pointer as it moves across the screen.

savings, checking and deposit accounts at the same time. If lists of numbers don't mean a lot to you, Abank will even display a variety of different graphs which show the state of your finances in a much friendlier format.

Abank may not quite be in the same league as professional home accounts systems like Digita's popular Home Accounts, but it's certainly getting there. Let's hope that the author, David Gaussinel, continues to develop his program as it's definitely one of the better PD home-accounts packages available. If you want to keep your finances in order, look no further than Abank.

Rating 88%

Utilities Collection 72

Cynostic Disk U0292

Like the man from Kelloggs, Cynostic don't make utility collections for other PD libraries. Instead, they've been churning out their own collections of fine PD utilities for more years than most of us care to mention. So much so, in fact, that they've now reached disk 72 which, like all of (er... or should that be most of?) their previous utility collections, contains a selection of the latest PD utilities. Here's what to expect.

- **Ag2Txt 2 –** The name may not be very catchy, but there's no doubt that Ag2Txt is a very useful utility. Ag2Txt is a program that converts an AmigaGuide document to highlighted text that can be read using any standard ASCII text reader. Version 2 of Ag2Txt handles the full range of AmigaGuide control codes and offers a considerable speed increase over previous releases thanks to its use of AmigaDOS 2.0's buffered I/O functions.
- **Crunched File Examiner –** File crunchers like PowerPacker are wonderful for reducing the amount of disk space that programs take up, but what do you do if you want to alter a crunched file using a file editor? Unless you have the file cruncher that was used to crunch the program, you're stuck mate!

Crunched File Examiner is a utility that examines a crunched file and tells you exactly what was used to crunch it. Although it won't decrunch the file for you, at least you know what program you need!

- **Pointer Eyes –** It may not be the most useful program lurking in the PD libraries, but

who cares – Pointer Eyes is fun! It displays a pair of 'eyes' (I kid you not!) on the Workbench screen titlebar that watch your mouse pointer as it moves around the screen. I'm reliably informed that this is amusing.

● **WindowToFront –** You don't need a PhD in biology to work out what this utility does (in fact, in this particular case, such a qualification serves no useful purpose whatsoever). For the less perceptive, however, WindowToFront allows you to bring any non-'backdrop' window to the front of the display simply by double-clicking on it. Quite why you would want a PD utility that does this when Commodore thoughtfully included one themselves with later versions of Workbench is beyond me, but there you have it.

Rating 75%

Titanic II

Paul Thompson

What have Commodore International and the Titanic got in common? Surprisingly, a great deal – both gave the impression of being as solid as a rock, but sank without trace in no time at all. Although it may well take historians some time to turn their attentions to Medhi Ali's glorious triumphs, there's no shortage of interest in that other great disaster, the sinking of the SS Titanic. If you've ever wanted to discover the truth behind the myth, Paul Thompson's new title could be for you.

Titanic II is an interactive guide which lets you explore one of the greatest maritime disasters of all time. Designed by the brains behind that other great PD history title, Tutankhamen, Titanic II offers a fascinating look at the disaster. Using a combination of text, sound, illustrations and digitised images, Titanic II covers not only the events of that fateful night, but also offers an impressive array of background information, covering such diverse subjects as the reasons why the Titanic was built, public reaction to the sinking and even the recent discovery of the wreck. All this information is logically organised and, as a direct result, very easy to access.

Once again Paul Thompson has come up with a PD title that outshines not only its PD counterparts, but most commercial offerings too. In all, Titanic II comes highly recommended. Titanic II is available for £4.99 from Paul Thompson, 7 Queens Road, Formby, Merseyside L37 2HF.

Rating 92%

AM/FM Disk Magazine

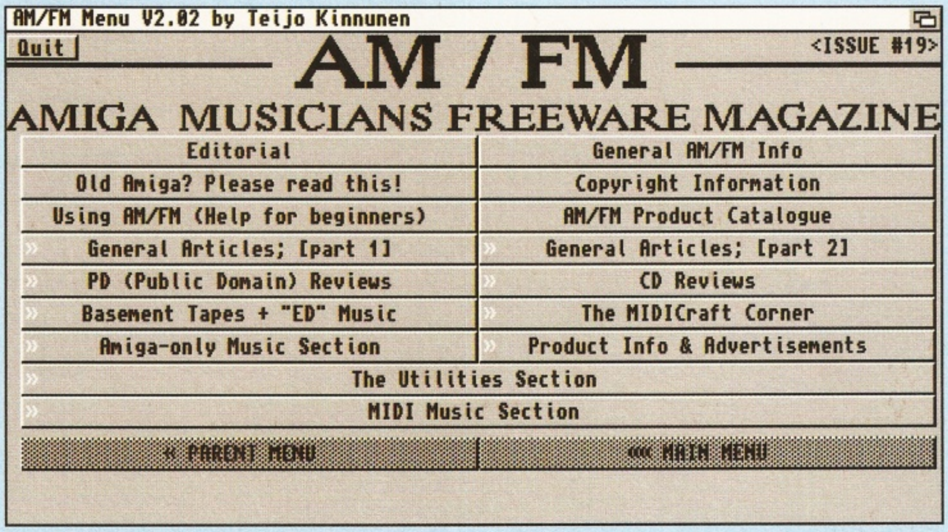
Cynostic disk AM043

If you have even the slightest interest in making music with the Amiga, then Cynostic's AM/FM disk magazine is well worth investigating. Now up to issue 19, AM/FM has always been seen as the premier disk magazine aimed at Amiga musicians and this latest issue certainly isn't going to do that reputation any harm.

Like previous issues, AM/FM is stuffed to the gills with thought-provoking editorial, news (including a rather interesting piece of Steinberg's experiments with an Amiga version of its Cubase sequencer!), reviews of commercial and PD utilities, tutorials and a wide range of music modules which can be loaded into your favourite Sound Tracker utility. This latest issue also includes a free music utility called Module Administrator that lets you organise your Sound Tracker modules with ease.

As an added bonus, AM/FM also includes a set of drivers for the PD patch editor, PatchMeister, which allows the aforementioned utility to be used to edit sound patches for Korg's brilliant WaveStation EX and SR keyboards. If you own either of these keyboards, it's well worth buying this disk just to obtain these invaluable drivers!

Rating 82%



If you thoroughly enjoy writing music on your Amiga, then Cynostic's AM/FM Disk Magazine should be at the top of your PD shopping list.

Pub Games Collection

Your Choice PD disk GA549

We don't normally cover PD games in Amiga Shopper, but this little collection from Your Choice PD is so good that we thought it just had to be included. As its name suggests, Pub Games contains a selection of games that you'd expect to find in any great British pub.

Games on offer include an absolutely wonderful darts game, a fruit machine game, dominoes, checkers (a draughts game) and a simple card game called CribMaster. Not all the games are to the same high standard as the darts game, but all are fun.

If you're ever in need of a light-hearted break from your word processing, programming, or 3D rendering, then you won't go far wrong with Your Choice's Pub Games collection. Highly recommended.

Rating 90%

Scribble Utilities 15

Scribble PD disk U378

Utility collections are immensely popular amongst the PD buying public as, unlike most PD disks, they contain a selection of utilities covering a wide range of different applications. Although few PD libraries would try to pretend that every program on a given disk will be of use to you, you can always guarantee that at least one program will prove very useful indeed. Here's a rundown of what Scribble's latest utility compilation has to offer:

● **Fansi –** If you're a bit of a Comms nut, then you need an ANSI editor and this is exactly what Fansi claims to be. It can be used to create and edit images using the full IBM ANSI character set. Unlike *some* ANSI editors, the author has obviously tried very hard to make Fansi as easy to use as possible, which is helped considerably by its full Intuition front-end.

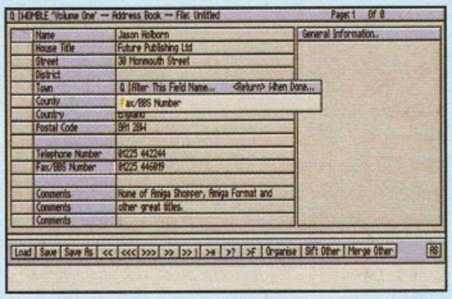
● **IRA –** IRA is a utility that translates any executable or binary file into Assembly source code that, in theory, can be edited and then compiled back into an executable using any standard Amiga Assembler.

● **LHaSFX –** LHaSFX is a modified version of the popular LHA archiving utility that can create archives that are self-extracting. What this means is that anyone can decompress an SFX archive simply by 'running' it from the Shell prompt, without having to feed it through a decompression utility.

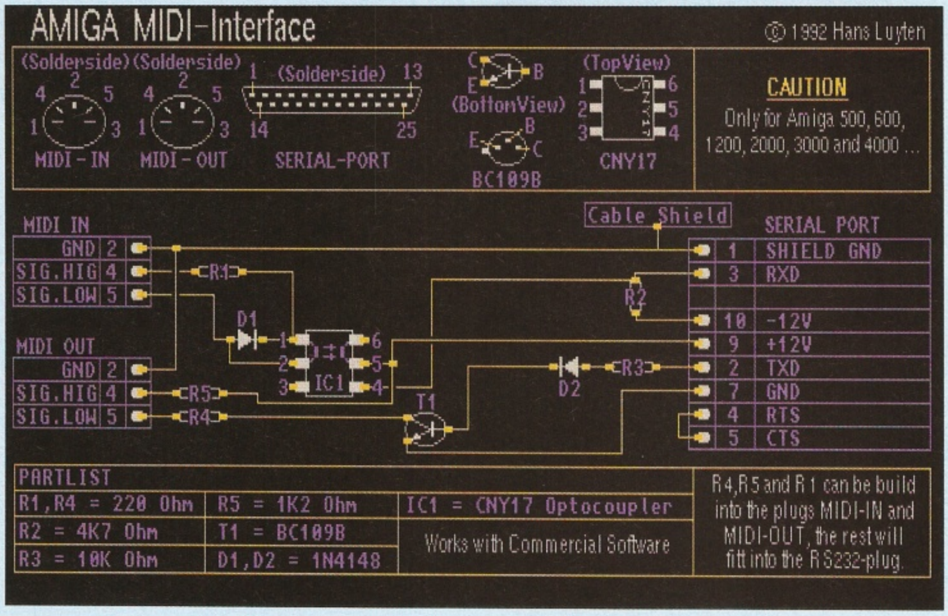
● **UnZIP –** If you've ever downloaded files from a PC-based BBS, then you'll already be all too aware that PC-users prefer their files to be stored in ZIP format. Unfortunately, Amiga ZIP utilities are a little thin on the ground, so UnZIP is something of a godsend.

● **Womble –** The most interesting of all the utilities on offer is Womble – a powerful multipurpose organiser that includes an address book, database and a timetable system. Its user

▶ 86



Filofaxes may no longer be cool, but the computer variety still proves to be very popular. Organise your life with ease thanks to Womble.



Have you ever flicked through advertisements and wondered whether you could make your own sound sampler or MIDI Interface? With Saddle Tramp's Hardware Projects, now you can!

85

Interface is a little flaky to say the least, but it's reasonably powerful and very easy to use.

Rating 72%

Hardware Projects

Saddle Tramps PD disk U217

How many times have you ever flicked through advertisements and wondered whether you could make your own sound sampler or MIDI Interface, instead of having to pay the high cost of commercially available add-ons? If you have, then Saddle Tramps' latest is for you. It contains full instructions and diagrams for a variety of hardware projects which you can build yourself. Not only can you save a lot of money, but you also get the satisfaction of knowing you've built something yourself.

The disk contains no fewer than 12 separate projects, including: how to fit a PC 3 1/2 inch hard drive to an A1200; how to connect an A2000 external keyboard to an A500 or CDTV; how to make your own MIDI Interface and so on. All these projects are backed up with extensive step-by-step documentation and appropriate diagrams.

Although less experienced users may find the instructions a little hard to follow, they're clear enough for most people's needs. Unless you feel *totally* confident with a project, however, it's best not to expose your Amiga's delicate electronics to unnecessary risks.

Rating 80%

Project Apollo

Roberta Smith DTP

Thanks to multimedia authoring systems like Gold Disk's HyperBook, you don't have to be a brilliant programmer to produce your own PD multimedia reference title. Programs like HyperBook let you quickly and easily create your own interactive information systems, complete with graphics and sound, as this two-disk collection from Roberta Smith DTP proves.

Created by Andrew Hill, Project Apollo is a fascinating interactive guide to man's first landing on the moon in 1969. Some of the language used is a little dramatic, to say the least. The history of the Apollo 11, for example, starts with this very over-the-top sentence: "It was an epic drama played out in the heavens not by gods, but by men, and for a moment – one brief, glorious moment – all the people of the world were one as they watched with bated breath and marvelled at man's ingenuity, his courage, his thrusting ambition and his monstrous arrogance". Er, right – are we still talking about the same subject?

This minor observation aside, however, it has to be said that Project Apollo is generally very good with plenty of well-researched information, some good digitised images and even a few digitised samples thrown in for good measure. Although not quite in the same league as Titanic II (reviewed earlier), Project Apollo is still worth investigating.

Rating 72%

Utility Collection 71

Cynostic disk U0291

Cynostic have done it again! That is, they've managed to squeeze another fine collection of PD utilities on to a single disk.

● **Butler James –** Quite why the author chose the name Butler James is beyond me, but what he lacks in taste, he more than makes up for in programming talent. Butler James is simply one of the best PD address book utilities available. It includes all the usual editing, searching and printing tools, all of which are brilliantly executed and very easy to use thanks to the program's full Intuition Interface. It also runs as a Commodity so that it can be 'popped up' at any time.

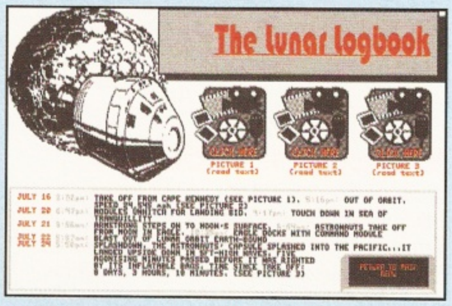
● **CG Calendar –** A Compugraphic calendar? Er, not quite, but close – sure, it's a calendar but the 'CG' bit has nothing to do with outline fonts whatsoever. In reality, CG Calendar is nothing more than a simple utility that displays a calendar of the current month in a Workbench window. Simple, but useful.

● **Director –** Director is an input recorder utility that enables you to record all mouse and keyboard events that you perform as a macro. This macro can then be played back at any time and any number of times as fast as your Amiga can handle it. Director offers a certain amount of intelligence too, since it can remember which window the actions were performed in, regardless of what windows may currently be opened.

● **Injector 2 –** Injector is a hotkey-invoked Commodity designed to allow you to 'inject' events into the input stream. It can be used, for example, by an ARexx script to mimic keyboard input without the user having to physically press keys. It offers a full ARexx Interface and a comprehensive Preference editor.

● **ShowFont –** You don't need a brain the size of a planet to realise what ShowFont does. As its name suggests, ShowFont displays all your available fonts using a friendly front-end. It supports bitmapped, Compugraphic fonts and even colour fonts.

Rating 77%



Click on one of the three multimedia icons and Project Apollo displays a digitised image to back up the well-researched information.

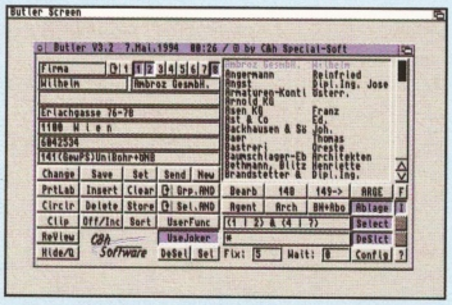
MUFS 1.8

OnLine PD

It's not every day that I receive a disk which immediately grabs my attention, but with a name like MUFS, my curiosity was aroused. Unfortunately, MUFS is actually short for Multi User File System. Ah well, it was nice whilst it lasted. What it does is to allow you to create a Unix-like, multi-user environment on your Amiga that allows several users to live together in harmony, without one worrying about the actions of the other (your kid sister accidentally deleting all your JPEG files, for example).

When your Amiga is first booted up, each user is prompted to enter their own personal

89



Butler James is one of the best PD address book utilities available. Keep track of friends and relatives with Butler James. You called, sir?

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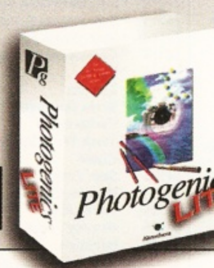
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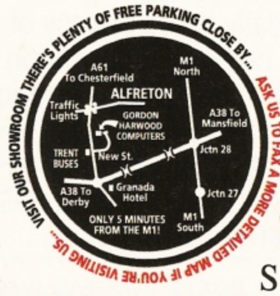
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86 user name and password. If this information is entered correctly, your Amiga then boots up. Each user is assigned their own 'system privileges' which gives them a certain amount of control over your Amiga. You could, for example, set yourself up with 'super user' status (giving yourself full control over every single file on your hard drive), but giving all other users considerably less control, therefore stopping them from accidentally erasing files, or, indeed, gaining access to 'sensitive' files which you'd rather they didn't see.

Even if you don't need to set up your computer for others, MUFS provides a very secure way of protecting your machine from prying eyes. Simply set yourself up as the only user allowed on the system and protect this status with a password and no-one will ever be able to gain unauthorised access to your files. It can defeated by an experienced Amiga user, of course, but, then, *no* system is entirely secure.

MUFS is an extremely powerful program that is very similar to the user protection built into Microsoft's new Windows 95 Operating System for the PC. Whereas Microsoft have spent millions developing their system, however, MUFS is the product of just one very talented Amiga programmer. If you value your data, get MUFS.

Rating 90%

Pro Lottery

Ali Prior

PD author Ali Prior certainly knows how to get his PD program noticed by a magazine reviewer – because he sent two disks with nothing more than large question marks on the their labels, accompanied by a short letter printed on day-glow, fluorescent green paper. It may have been garish, but it certainly got Ali's program noticed!

When I did eventually load up his disk, I have to admit that I initially wished I hadn't – after all, programs that predict the results of the National Lottery are almost as common as football management games these days!

Being the sort of fair guy I am, however, I gave Ali the benefit of the doubt and soldiered on. And, not to put too fine a point on it, I'm certainly glad I did, because Pro Lottery is one of the best Lottery prediction programs available in the Public Domain.

Not only does it look great (Ali has obviously spent a great deal of time on the program's presentation), but its predictions seem to be based on a very solid prediction engine. Ali's so confident of his prediction system that he even sent us a demo disk that explains how the theory behind his program works.

At the offset, Ali Prior goes to great lengths to dismiss any illusions you may have that Pro Lottery will make you a millionaire. Indeed, it probably won't even help you win a *small* prize each and every week. What it *will* do, however, is to increase your chances of getting at least three, four, or even five numbers right, so that when you *do* win, you've got a better chance of scooping a good prize.

At the end of the day, however, the National Lottery is based purely on chance, so there's no way that any lottery program, no matter how good the author claims it to be, can guarantee to help you to win money. Pro Lottery, however, adds to the fun of the Lottery and does at least give you an equal chance of being a winner.

You can obtain a free demo copy of Pro Lottery by sending an s.a.e. and a blank disk to Ali Prior, 10 Lovell Park Heights, Leeds, LS7 1DP.

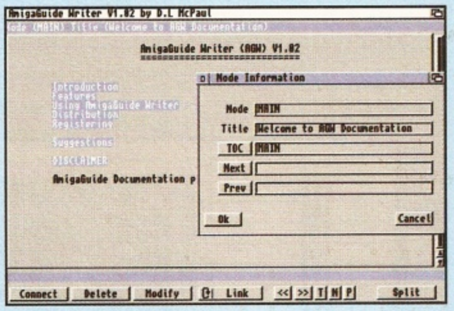
Rating 82%

Utility Collection 66

Cynostic disk U0267

Feast your eyes on another bumper selection of the best (and worst) in Public Domain utilities. This disk contains everything you need to write your own AmigaGuide documents, communicate with the outside world and much more besides. Cynostic's Utility Collection 66 contains 15 separate utilities. Here's a selection of the best.

- **AGWriter –** Ever wanted to write your own AmigaGuide HyperText documents, but didn't quite fancy the thought of having to learn all those complicated control codes? If so, then AGWriter is for you. AGWriter is a text editor designed specifically to aid the writing of AmigaGuide documents. It can also be used to convert AmigaGuide documents into standard ASCII files.
- **HFT –** Described by the author as the 'coolest' ANSI terminal program available, HFT is a very small ANSI terminal that allows you to log on to bulletin boards that use the ANSI character set for their displays. Despite the author's claims, HFT certainly isn't anything particularly special since it offers only a *minimal* amount of terminal controls.
- **Undel 1.0 –** Have you ever accidentally erased a file that you actually needed? If so, then you'll already know just how frustrating it can be. With Undel installed on your machine, however, all is not lost – Undel will happily undelete most files with ease.
- **PrintManager –** Print Manager is a printer 'spooler' utility. That is, a utility that acts as a 'buffer' between your printer driver and your printer which takes the output from your printer driver and feeds it to your printer only when your printer is ready to accept it. The advantage of using a spooler is that, in the event of something going wrong with your printer, you don't have to get the application which generated the printed output to print again, because the Spooler buffers it.



Create your own HyperText AmigaGuide documents with AGWriter on Cynostic's Utility Collection 66.

- **FixAGA –** The AGA chipset may have been available for a number of years now, but that hasn't stopped some programmers from still producing games that refuse to work on the A1200 or A4000. FixAGA forces badly written games and other utilities to work under the AGA chipset.
- **OptIcon –** 256 colour icons are all very well, but they do tend to slow down your Amiga's Workbench. The problem is that Commodore's own Icon Editor utility insists on writing 8-bit (256-colour) icons even if you use no more than four colours. OptIcon fixes this problem by stripping bitplanes from icons so that only the required number of bitplanes are used. The author claims that it speeds up icons by a factor of two to three times.

Rating 85%

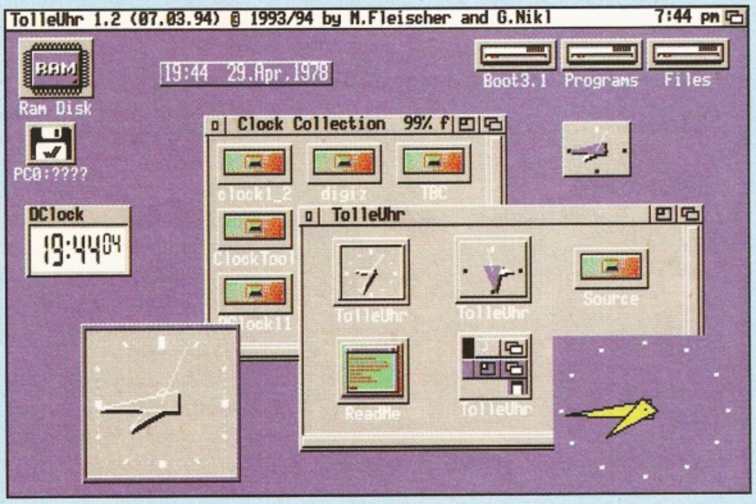
Clocks Collection

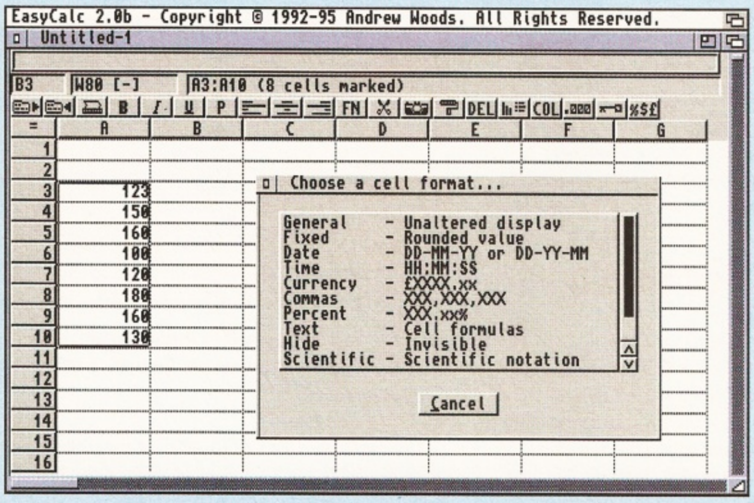
Saddle Tramps PD disk U220

Now here's an interesting idea – a collection of PD clock programs. Yes folks, it's just the sort of utility collection that we've all been waiting for. But such a collection isn't as barmy as you might think. It's a well-known fact that Commodore's own Clock utility bundled with Workbench isn't quite as flexible as we might all have liked, so it should come as no surprise that there are plenty of PD alternatives. But which one suits you best? Well, what better way to find out than to buy a single disk that contains the pick of the best?

Saddle Tramps have scoured the PD libraries and this disk is the result. It contains nine different clock programs ranging from 90

Need a clock for your Workbench? Take your pick – Saddle Tramps' Clocks Collection gives you the choice of nine!





EasyCalc is without doubt the best Amiga PD spreadsheet program ever to be released. Miss this one at your peril!

89 Dclock (a digital clock complete with a fancy digital type face), ClockMouse (gives your mouse pointer a wrist watch), Sclock (a highly configurable digital clock that sits in its own tiny window), TBC (places a clock in the Workbench titlebar), TinyClock (a very flash analogue clock that can be displayed on the Workbench backdrop) and – best of all – TolleUhr (the best analogue clock available for the Amiga).

Rating 82%

EasyCalc 2.0

KEW=II disk A1103

The prize of "PD program of the month" has to go to KEW=II's EasyCalc 2.0. When this disk first appeared on my desk, I have to admit that I was less than enthused by the prospect of reviewing a PD spreadsheet program – having used PD spreadsheets previously, past experiences have been less than favourable.

But how wrong I was – EasyCalc 2.0 is without doubt the best PD spreadsheet program *ever* released for the Amiga. Okay, it may not quite match up to the likes of Gold Disk's ProCalc, or Softwood's FinalCalc, but, believe me, this program is getting frighteningly close.

Written for all Workbench 2.0-based Amigas, the first thing you notice about EasyCalc 2.0 is its very polished front-end that doesn't look too dissimilar to either of its commercial rivals. Boasting a full Workbench 2.0 compliant front-end, EasyCalc 2.0 more than lives up to its name.

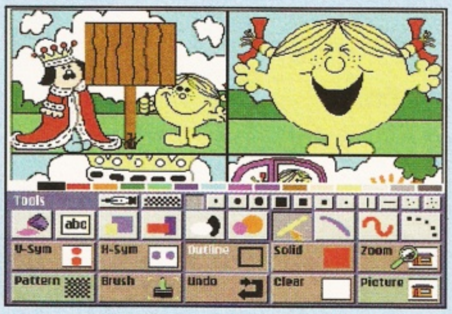
It's no slouch in the raw number-crunching department either – like its commercial rivals, EasyCalc 2.0 offers a comprehensive range of spreadsheet functions, including some quite complex mathematical operators such as hyperbolic cosine, arc tangent, averages and so on. Getting to grips with these functions is very easy too, because EasyCalc has been modelled around that grandad of computer spreadsheets, Lotus 1-2-3.

One of the most interesting aspects of EasyCalc is its impressive graphing functions which allow you to display your spreadsheet data in graph format. EasyCalc supports a wide range of different graph types, including pie charts (2D and 3D), bar (once again, available in 2D and 3D flavours), bar stacked, line and area, all of which can be saved as IFF files, or printed directly to paper.

It's not very often that you find a PD program that can truly hold its own against commercial offerings, but EasyCalc is one such program. Although its range of functions is not quite as comprehensive as those offered by either ProCalc or FinalCalc, it more than makes up for this in its ultra-friendliness and powerful graphing functions.

If you're considering a spreadsheet, take a look at EasyCalc before you spend your hard earned cash on a commercial alternative – you may find that it's all you need!

Rating 95%



If a picture tells a thousand words then Belle Paint could earn me a fortune!

Belle Paint

Saddle Tramps PD A115

Programmed in AMOS Professional by PD author Philip Drake, Belle Paint borrows more than a few tricks from a number of commercial graphics packages, including Scala and Brilliance. Indeed, its user Interface is a strange mish-mash between these two applications – like Brilliance, its various gadgets and requesters are displayed on a screen that runs horizontally along the bottom of the main screen. The overall look of the program, however, has a definite Scala influence with Scala's own font being put to good use for all the program's Interface text.

Belle Paint is a paint program, but it takes even this task one step further. Unlike similar PD packages, Belle Paint also provides what the author describes as a 'video processor'. What this means is that you can build up a slideshow complete with fancy wipes and fades which can be used for anything from simply displaying your favourite pictures to a complete desktop video presentation.

In many ways, there's no reason why you couldn't use Belle Paint as a simple video titling package – judging by the demo 'script' bundled with the program, it's certainly more than up to the job!

As a paint program, Belle Paint is fairly impressive too. It may not pose any serious threat to commercial offerings, but as a freebie Belle Paint certainly can't be sniffed out. As you'd expect, it provides all the usual drawing and painting functions – freehand, lines, boxes, circles, curves and so on – all of which are implemented very well. Belle Paint's Scala-like front-end certainly helps to make this a very simple program to use.

Being an AMOS program, however, Belle Paint doesn't support the AGA chipset, so you're limited to how many colours your pictures can use. This minor gripe aside, Belle Paint is well worth investigating.

Rating 90%

Gas Trick

Roberta Smith DTP BU232

With the introduction of VAT on fuel, there's never been a more pressing time to keep a watchful eye on your gas bill. Roberta Smith DTP obviously think so too, because they've released Gas Trick, an interesting AMOS Professional program that claims to be able to calculate your gas bill for you.

All you need to do is enter the date of your last reading, today's date and the appropriate meter readings and Gas Trick will not only calculate the appropriate values, but it'll also show you how much the Chancellor has so kindly added due to VAT.

Rating 72%

Techno BBS

Cynostic PD disk U0193

The Internet may be all the rage these days, but there's still a place for the good old bulletin boards. Before the Internet became fashionable, bulletin boards formed the foundations of the communications revolution with computer users calling boards to get the share of the latest news, E-mail and Public Domain software.

Surprisingly, setting up your own bulletin board isn't as far-fetched as you might think – all you need is a spare phone line, an Amiga 93



Is your house using too much gas? With Roberta Smith's Gas Trick, you can find out.

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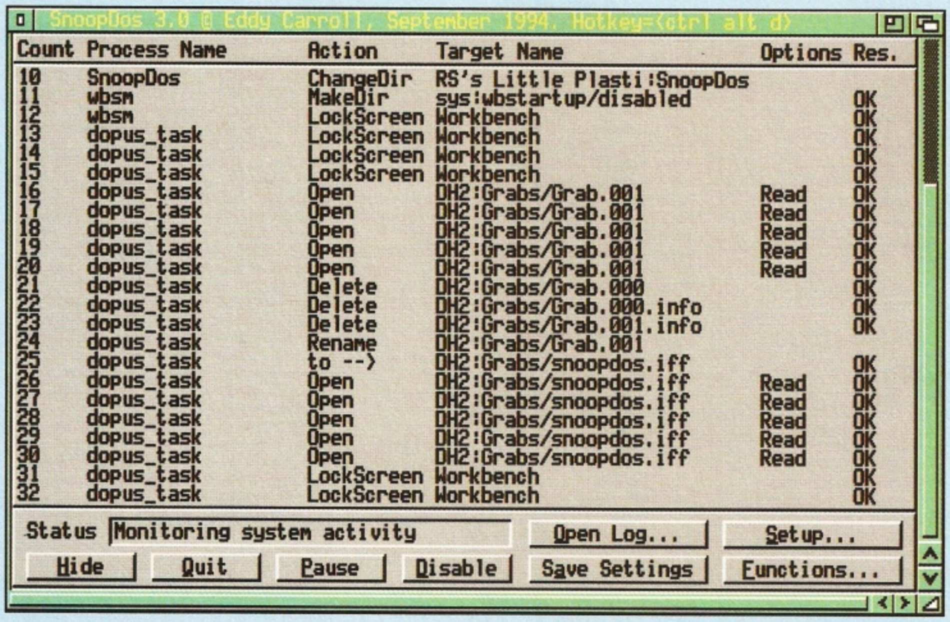
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Arguably the most useful PD utility of all time, SnoopDOS is so good that it should have been a standard feature of the Amiga's Workbench!

90 ▶ equipped with a modem and Cynostic PD's Techno BBS.

Programmed by Ville-Pertti Keinonen, Techno BBS is a highly flexible bulletin board system for the Amiga. Provided as a shareware application, you can use it for 30 days, but the author insists that you register your copy after that time. If you decide not to register, then you'll have to make do with a bulletin board system with some major limitations – worst of which is a 'timing' feature which only accepts users logging on at specified (and seemingly random) times. I think you'll agree that registering will certainly make your BBS a bit more user-friendly!

Techno BBS consists of three separate programs – TechCon (a process control utility for the BBS which provides the SysOp with a quick and easy method of controlling the BBS' operation whilst 'on-line'); TechnoBBS (the actual BBS software – one copy of this program must be run for each 'node' that you want to run); and TechMail (the Fidonet 'tosser' utility which handles E-mail and Fidonet access). To get the BBS running on just a single line, however, you *do* need at least 1.5Mb of memory.

TechnoBBS offers an impressive features list, which includes: a highly configurable menu structure; Fidonet and local message bases; a built-in, full-screen message editor; file transfer support using XPR protocols; an interactive chat mode between SysOp and users; and an unlimited number of nodes – the more serial ports and modems you connect, the more nodes you can run!

Rating 82%

Little Blue Plastic Workdisk

Roberta Smith DTP

Cynostic isn't the only company that knows how to produce a decent utilities compilations as this disk from Roberta Smith DTP more than adequately proves. What's more, Roberta Smith's choice in disk names is a lot more imaginative than Cynostic's too. Enough of the waffle, though, here's a rundown of what the disk has to offer.

● **BarClock –** Yes folks, BarClock is a clock utility that displays the time in the Workbench titlebar. A simple, yet well-implemented program that gets the job done with a minimal amount of fuss.

● **Mformat –** Mformat is designed to act as a replacement for the Commodore disk-formatting utility built into Workbench. The program allows you to not only format disks, but it can also automatically install disks and you can switch off verifying which increases the speed of formatting disks considerably.

● **Installer 1.24 –** If you've bought an application within the last two years or so, then chances are that you've already used Installer.

The fact is, this Commodore-developed utility was quickly adopted by virtually all software developers as the standard method of providing Hard Disk installation facilities with their wares.

With the version of Installer on this disk, however, you too can take full advantage of this powerful program. It allows you to create a complex, mouse-driven installation script that is very, *very* easy to use.

● **LastAlert 2 –** How many times has your Amiga suddenly crashed for no reason whatsoever? LastAlert2 could help. Although it won't prevent crashes, LastAlert2 can inform you of the exact *reason* why your Amiga crashed. Okay, it may seem a little like shutting the stable door after the horse has bolted, but at least you know what went wrong.

● **SnoopDOS 3.0 –** What utility collection would be complete without a copy of Eddy Carroll's brilliant SnoopDOS 3.0? For the uninitiated, SnoopDOS is possibly the most useful PD program in existence. It keeps you informed of exactly what file operations and other tasks that are currently running on your Amiga are performing. This comes in particularly handy when trying to discover why an application you've installed on your Amiga no longer loads. With SnoopDOS, it tells you exactly why the program failed, giving you all the information you need to fix the problem.

● **KeysPlease –** KeysPlease is a very simple Workbench utility that displays the raw key code value of any key that you press. It can also display its ASCII 7 and ASCII 8 value.

● **WBSM –** Short for WBStartUp Manager, WBSM provides you with direct control over which programs in your WBStartUp drawer are executed and which aren't when your Amiga boots up. Featuring a friendly Intuition front-end, WBSM is a lot easier and faster to use than manually moving the files yourself.

Rating 90%

DiskManager 4.0

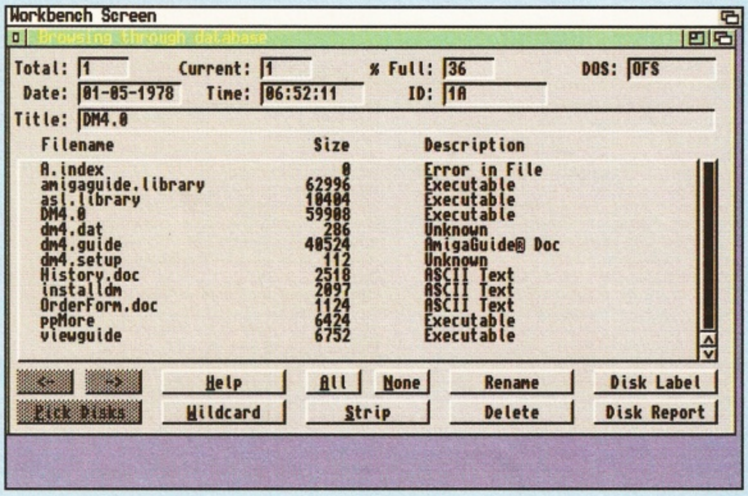
KEW=II disk U1100

With a name like DiskManager 4.0, you'd think that this new program from KEW=II PD was actually yet another Directory Opus clone, but, rather surprisingly, it's nothing of the sort. In fact, DiskManager is a disk-cataloguing program which you can use to keep track of the contents of all your disks.

"So what", I hear you ask? Well, the great thing about DiskManager is that it doesn't just catalogue disks, but their contents too. What this means is that you can ask it to find a specified file and it will tell you on which disk it can be found. Good, eh? ■

Rating 85% ▶ 94

Organise your disks and their contents with KEW=II's DiskManager 4.0.



PD houses

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AGA Exchange, 18 Brownshill, Cromer, Norwich, Norfolk, NR27 0QA. specialist areas: AGA PD/shareware full advice service, PD exchanges, Laser printing service. Catalogue free (with s.a.e. + disk). No phone orders, credit cards or direct debit.

AmiCom PD, 22 Church View Close, Havercroft, Wakefield, WF4 2PH. ☎ 0226 723807 ask for Kevin or Ian, Catalogue disk £1. Accept phone orders if buyer collects. Give special discount on large orders. Frequent special offers. Free catalogue updates.

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Amiganuts, 3 Spring Road, Bitterne, Southampton, Hampshire, SO19 2BH. Specialist areas: Acc, Accm, Words 4, general software and titles produced by M. Meany. Catalogue, 50p + s.a.e. Do not accept phone orders, credit cards or direct debit. Open always.

Anim 1 PD, PO Box 128, West Malling, Kent, ME19 6UA. Specialise in Animation graphics. Catalogue cost 60p. No phone orders, credit cards, or direct debit.

Asgard Software, 20 Langdale Drive, Flanshaw, Wakefield, W Yorks WF2 9EW. ☎ 01924 363 059. Specialise in all types of Amiga PD (approx. 4,000 disks in library). Catalogue is £1. No phone orders, no credit cards or direct debit. Open 24 hours.

Barkin Mad, 18 Rhyber Avenue, Lanark, Lanarkshire, ML11 7AL. ☎ 01555 663530. Catalogue free when sending a s.a.e. and/or disk. Accept phone orders. Do not accept credit cards or direct debit. Open always.

Beats Brothers PD, 6 Brownings Close, Pennington, Lymington, Hampshire, SO41 8GX. Specialist areas: Amiga games and utilities. Catalogue £1 inc p&p. Do not accept phone orders, credit cards or direct debit. The catalogue disk will be released in August 1994.

Belshaw's Computers, 55 Balderton Gate, Newark, Notts. ☎ and Fax 01636 72503. Catalogue free. Accept phone orders. Do not accept credit cards or direct debit. Open 9.30am to 5.30pm. Retail outlet, customers can call at shop.

BGPD, 6 Peter Steet, Whitehaven, Cumbria, CA28 7QB. Specialist areas: can supply any title reviewed in any Amiga magazine. The latest Assassin collections. Catalogue 50p or send a blank disk. Do not accept phone orders, credit cards or direct debit. Also many second hand (commercial) games + utilities and a PD document printing service.

Blitz BASIC PD, 39 Riding Dene, Mickley, Northumberland, NE43 7DL. Catalogue is £1.50. Open 9am – 5pm. Orders processed within 48 hrs. Also produce a diskmag for Blitz users.

Chris's PD, 22 Merryfields Avenue, Hockley, Essex, SS5 5AL. ☎ 01702 203826. Chris's PD disk catalogue 60p, 2 disk Fred Fish catalogue £1.10, both Chris's PD & Fred Fish disk catalogues £1.50 or free if you send s.a.e. with sufficient disks. Make cheques and postal orders payable to C. Waite. Open 6pm–8pm weekdays, 2pm–4pm Saturdays. All disks 69p each.

CAM-PD, 26 Crowland Way, North Arbury, Cambridge CB4 2NA.

Catheral PD, 2 Sulliban Way, Lichfield, Staffs WS13 6AS ☎ 01543 268564. Contact Mr. Hughes.

Club 1200, 57 Europa Rd, Lowestoft, Suffolk NR32 4BQ. ☎ 01836 328 263. Specialise in AGA and WB3 only. Catalogue is £1. No phone orders, no credit cards or direct debit. Open 9am – 7pm Mon – Fri. One disk free for every five bought.

CPU Computer PD Library, 120 High Street, Chatham, ME4 4BY. ☎ + Fax: 01634 826 218. Catalogue cost £1. Open 9.30am – 5pm Mon – Sat.

Craig Holmes Non-Profit PD, 23 Rocester Avenue, Wednesfield, Wolverhampton, West Midlands, WV11 3AU. ☎ 01902 305209. Specialist areas: latest virus checkers. Catalogue, free listing upon request. Do not accept phone orders, credit cards or direct debit. Open, mail order only – but phone enquiries 9am – 8pm, 7 days a week. Additional info, all discs £1.75 inc p&p. Bulletin board available on Sunday 2pm – 5pm only.

Deck The Ripper of NFA PD, 173 Trevind Drive, Rushey Mead, Leicester LE4 7TR. ☎ 01162 661 610. NFA productions are setting up a network of PD houses across the UK in an effort to get PD to the public as cheaply as possible.

Epic Marketing, Victoria Centre, 139 Victoria Road, Swindon, Wiltshire, SN2 3BU. ☎ 01793 490988, Fax 01793 514187. Specialists areas, desktop video fonts and tutorials. Catalogue £1. Accept phone orders and credit cards. Open 9.30am – 5.30pm Mon to Sat.

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Contact Peter Duckett ☎ 01932 855834
Banstead Limited Edition Software.
Contact Les, 28 Congcroft Av., Banstead, Surrey SM7 3AE.
Beccles Waveney Amiga (WAM).
Contact Andrew Rapps ☎ 01502 476 223. 77 Pinewood Gardens, North Cove, Beccles, Suffolk NR34 7PG.
Bedford Nemesis Amiga Group.
Contact Andy Melbourne, ☎ 01234 350654, 126 Mallard Hill, Bedford, MK41 7QT.
Brentwood Brentwood Computer Club
Contact Alan Holland, Sherwood House, Little Highwood Hospital, Geary Drive, Ongar Road, Brentwood, Essex.
☎ 01277 221 620.
Brentwood Hermit Computer Club.
Contact Ann Jones ☎ 01277 218 897. The Hermit, Shenfield Rd., Brentwood, Essex.
Brighton Hanover Computer Club.
Contact Colin Jones ☎ 01273 602834.
Bromley ICPUG South East.
Contact Ian Beard ☎ 01689 813 616.
Bromtard Better Than Life.
Contact Mark Waters, 7 Linton Downs, Brotard, Herefordshire HR7 4QT.
Camberley Camberley User Group.
Contact F Wellbelove ☎ 01252 871545.
Cambridge Cambridge Sixty-Eight Group.
Contact EPL Rowell ☎ 01954 210692.
Chesham Beaconsfield and District CC.
Contact Philip Lishman
☎ 01494 782 298.
Clacton Cheapo PD Club.
Contact Jason Meachen, Ivy Cottage, Chapel Road, Beaumont, Clacton, Essex CO16 0AR.
Crawley Yellow And Blue Room.
Contact Malvin Wall, ☎ 01293 534 139. Camfield, Langley Lane, Ifield, Crawley, W. Sussex RH11 0NB.
Corringham Imagine User Group
Contact Spencer Jarvis, 44 Brampton Close, Corringham, Essex SS17 7NR.
☎ 01375 670 036 (7pm–8.30pm).
Coulsdon The Crumblies.
Contact Frank Barron
☎ 0181 668 7695.
Deal Amiga Club.
Contact Wayne or John ☎ 01304 362297 or ☎ 01304 367 992, 27 Mill Hill, Deal, Kent. Meetings at St Johns Ambulance Hall, Mill Hill, Deal.
Enfield Enfield Amiga Club.
Contact Sean Clifton ☎ 0181 8042867.
Folkestone Amiga 101.
Contact D Cryer ☎ 01303 245 378.
Gerrards Cross Chic Computer Club.
Contact Steve Winter ☎ 01753 884473.
Hastings Computer Club.
Contact ☎ 01424 421480.
Horsham Amiga Zone.
Contact Gareth and Raymond, 7 Swindon Road, Horsham, W. Sussex RH12 2HE.
Ipswich Not the Night.
Contact Andrew, 8 Lanark Road, Ipswich, IP4 3EH.
Leigh-on-Sea Sensible.
Contact M Street, 158 Hadleigh Road, Leigh-on-Sea, Essex SS9 2LP.
Leigh-on-Sea The Swop Shop Club.
Contact Ian Prentice ☎ 01702 710267.
London (Woolwich) Inspira Software Club.
Contact David Cowell ☎ 0181 473 4426, 45 Sunday Hill Rd., Woolwich, London SE18 7BQ.
London (East Ham) Amigaholics Club.
Contact Kevin Bryan
☎ 0171 580 2000 Ext 240.
London (Hampstead Garden) Amiga Club.
Contact Imp ☎ 0181 455 1626.
London (Norbury) Imagine User Group.
Contact Richard Sequeira, 95 Stanford Road, Norbury, London SW16 4PP.
London (Winchmore Hill) Access Information Tech.
Contact Darren ☎ 01956 229729.
London PD for beginners.
Contact M. Macias ☎ 0171/924/5528 before 6pm. 14 Totteridge House, 15 Yelverton Road, London SW11 3QQ.
London Twilight.
Contact 13 Mavis Court, Ravens Close, London NW9 5BH.
Luton Plague Amiga Users Group.
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Worthing Imagine, LightWave, Real 3D objects.
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Yarmouth Robotronix Amiga Club.
Contact P. Symonds ☎ 01493 667161

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Bournemouth Amiga Club.
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Bristol Avon Micro Computer Club.
Contact Roger or Bob
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Contact Charles Read, 10 The Cedars, Tilehurst, Reading, Berks RG3 6JW.
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Contact Sean Woodward. Fido 2:2503/104; 11 Menin Road, Allestree, Derby DE22 2NL.
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N Ireland Digital Intensity (diskmag).
Contact Simon Denvir, 40 Old Cave Hill Rd, Belfast BT15 5GT.

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Contact J Lanng, 7 Majestic Rd, Hatch Warren, Basingstoke, Hants RG22 4XD.
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Contact D Beet Lock, Branston Fen, Lincolnshire LN3 5UN.
Braunston Nr Daventry GFA Basic Forum.
Contact J Findlay ☎ 01788 891197.
Braunston Nr Daventry Amiga E Support Group.
Contact John Findlay ☎ 01788 891197.
Broadstairs AMOS Programmer Club.
Contact Gareth Downes-Powell, 6 Brassey Avenue, Broadstairs, Kent CT10 2DS.
Bury St Ed-munds Amiga Sports Fans.
Contact Jamie Last, York House, Church Road, Elmswell, Bury St Edmunds, Suffolk IP30 9DY.
Chelmsford ICPUG
Contact David Elliott ☎ 01245 328 737.
Corringham Imagine User Group
Contact Spencer Jarvis ☎ 01375 670036. 44 Brampton Close, Corringham, Essex SS17 7NR.
Dewsbury Ethos BBS.
Contact Steve Bell ☎ 01924 437258, 909 Leeds Rd., Chidswell, Dewsbury, West Yorkshire.
Durham Under 18 PD User Group (JB's PD).
Contact J Blackburn, Longridge, Potters Bank, Durham DH1 3RR.
Glasgow 24-Bit Club.
Contact Gordon Keenan, 24-Bit Club, 6 Skirsa Square, Floor 1, Glasgow.
Haddington Heart of Lothian BBS
Contact Andrew Dowds
☎ 01620 826111/6004.
Highfields CDTV User Group.
Contact Gary Ogden, ☎ 01785 227059.
Huddersfield Third Dimension -3D Construction Kit Users.
Contact Tony Hartley ☎ 01484 460888, 19 Kipling Close, Lockwood, Huddersfield, West Yorkshire MD4 5HA.
Isle of White Interactive Design
Contact David Pettifer/Matt Parsons
☎ 01983 867377 after 5pm. 22 Brook Rd., Shanklin, Isle of White PO37 7LU.
Lingfield In Touch Amiga.
Contact P. Allen, ☎ 01342 835530, PO Box 21, Lingfield, Surrey RH7 6YJ.
London (Richmond) Micro Academy.
Contact Don Pavey ☎ 0181 878 1075.
London Walton's Mountain (BBS) Virtually Amiga specific.
Contact Jimbob ☎ 0181 891 5730.
London ICPUG.
Contact the Membership Secretary. Fax 0181 651 3428. ☎ 0181 651 5436.
Lothian ICPUG.
Contact David Hope ☎ 01555 811 955.
Macclesfield ICPUG.
Contact Peter Richardson ☎ 01298 23644.
Maidenhead ICPUG.
Contact Mike Hatt
☎ 01753 645 728 (8pm–10pm).
Manchester CDTV Users Club.
Contact Julian Lavanini, 113 Fouracres Rd, Newall Green, Manchester M23 8ES.
New Whittington Digital Music Club.
Contact Roger Hunt ☎ 01246 454280.
Normanton BASIC Programmers' Group.
Contact Mark Blackall ☎ 01924 892106.
Rochford Ray Tracers.
Contact Neil Hallam, 12 Meesons Mead, Rochford, Essex SS4 1RN.
Romford Phoenix Demo.
Contact Frank ☎ 0181 597 4661.
Rotherham Marksman (Trojan Phazer).
Contact David Green, 67 Thicket Drive, Maltby, Rotherham, S. Yorkshire S66 7LB.
Scotland Quadrant BBS
Contact Chris Bruce (Sparky)
☎ 01289 331822.
Solent ICPUG.
Contact Anthony Dimmer
☎ 01705 254969.
Swindon Amiga Video Producers' Group.
Contact J Strutton
☎ 01793 870667 (–9pm).
Swindon MUG – MED Users Group.
Contact Richard Bannister, 6 Glevum Rd, Stratton St Margaret, Swindon SN3 4AF.
Taunton HSPascal User Group
Contact T. Long, 13 Longmead Close, Taunton, Somerset TA1 4SZ.
Wallington Bible Bureau.
Contact AD ☎ 0181 669 7485.
Ware Gamer-Link.
Contact Stu, 28 Churchfield, Ware, SG12 0EP.
Witham Video Visuals.
Contact Chris Brown, 4 Lavender Close, Witham, Essex CM8 2YG.
Workington AMOS Programmers Group.
Contact John Mullen at 62 Lonsdale St, Workington, Cumbria CA14 2YD.
Worlingham Sliver BBS
Online all cheap rates.
Contact Mat Tillet ☎ 01502 714 663, 27. Hillside Avenue, Worlingham, Beccles NR34 7AJ.

Overseas

Australia Southern Suburbs Commodore Users Group.
Contact Steve Perry, P. O. Box 217, Beverley Hills 2209, Sydney, N. S. W. Australia.
Australia Amiga Users Group of Western Australia.
Contact Bill Sharpe-Smith, PO Box 595, Cloverdale WA 6105, Australia.
Australia Comp-U-Pal.
Contact Comp-U-Pal, 116 Macarthur Street, Sale, Victoria 3850, Australia.
Belgium AUGFL vzw.
Contact Lieven Lema, Meesberg 13, 3220 Holsbeek, Belgium.
Cape Town ICPUG
Contact Ken Turner ☎ +507 5131. Internet: kturner@aztec.co.za. 24 Du Plessis Avenue, Edgemead, 7441, Cape Town, S. Africa.
Denmark Danish AMOS User Group.
Contact Tom Poulsen, DABG, Postbox 127, 2640 Hedehusene, DK Denmark.
France Interceptor (Public Domain Software).
Contact Interceptor, 13 Avenue Jean Jaures, 73000 Chambery, France.
France 16-32 Micro.
Contact F Moreau, 132 Rue Jean Follain, 50000 Saint-Lo, France ☎ 315220 02.
France Maritime Amiga Club.
Contact CDR K Osei, GN Ships Refit Office, 51 Rue de la Bretonniere, 50105 Cherbourg, France.
☎ 33 33225447.
Germany Royal Air Force Amiga Club.
Contact Stan Young, HMF RAF Laarbruch, BFPO 43.
Germany Worldwide PD Club.
Contact Dave White, Berliner Strasse 39, 40880 Ratingen, Germany
☎ 02102 499729 (Germany).
Greece Amiga Pros User Group (member GAC)
Contact Stefanos Siopoulo
☎ 01 9349963.
52 Silvrias Str, N. Smyrni 171 23, Athens, Greece.
Greece Amiga Athens Club.
Contact Stefanos Papamichael, 9 Derfeld Rd, Patisia, 11144 Athens, Greece
☎ 01/2027973.
India Indian Amiga Friends.
Contact Bilal, 46 Paragon 405 Lokhandwaza Complex, Andheri (W), Bombay-400058.
Iran Palapal
Contact Paymddn Jafari, PO Box 17845–343, Teheran, Iran, or, No. 26, 32 St., Moslem St., Abouzar Blvd., Pirouzi St., Teheran, Iran. ☎ (Iran) 021 315 3445.
Ireland Amiga Addicts.
Contact A Minnock, Clonkelly, Binn, Co Offaly, Ireland (send s.a.e.).
Ireland AMOS Users.
Contact Brian Bell, 8 Magnolia Park, Dunmurry, Belfast BT17 0DS.
Ireland City Centre Amiga Group.
Contact Patrick Chapman, 70 Ballygall Crescent, Finglas East, Dublin II, Ireland, ☎ 345035.
Ireland Commodore Users Group of Ireland.
Contact Geoffrey Reeves, c/o St Andrew's College, Booter-stown Avenue, Blackrock, Co Dublin. ☎ +353 1 288 3863.
Ireland Navan Computer Club.
Contact Mark Arnold, Cannistown, Navan, Co Meath, Eire ☎ 046 21078.
Ireland Northside Amiga Group.
Contact William Kelling, 10/A Rainsford Avenue, Dublin 8, Ireland ☎ 01 532 807.
Ireland Software Exchange Club.
Contact Michael Lacey, Fern's Post Office, Enniscorthy, Co. Wexford, Republic of Ireland.
Italy Amiga Expert Team / Uniware
Contact Mirko Lalli, Via Vecchia Aretina 64, I-52020 Montalto, Pergine Valdarno (Arezzo), Italy. ☎ +39 575 899 798 (for Fax, voice request).
Italy Amiga Jewels
Contact PO Box 6, 57027, San Vincenzo, Italy.
Malta HTS (Malta).
Contact K Cassar, Block 1 Flat, 6 H E Hal-Tmiem, Zejtun ZTN07 Malta ☎ 674023.
Malta Malta Amiga Club.
Contact Zappor, PO Box 39, St Julians, Malta. ☎ 440453
Norway '94 Amiga Club Norway
Contact Mats Lindh, Elvensveien 22, N-1666 Rolsvoey, Norway.
Portugal Centro Amiga/Via Lactea BBS.
Contact Rui Costa, 351 01 888 2245/49, Largo do Martim Moniz-C,C, Mouraria, 1 loja 408-1100 Lisbon, Portugal.
Portugal Software Asylum.
Contact Sid Sanches, Portugal
☎ 062 831566. Apartado 6156, 3000 Coimbra, Portugal.
Singapore Singapore Sling.
Contact Eric Chai ML, Block 4 #14-413, Pandan Valley, Singapore 2159,
☎ 65 4680630.
South Africa Amiga Users Exchange (AUX).
Contact Ken Turner, 24 Du Plessis Avenue, Edgemead, 7441 Cape Town, S. Africa. Internet: kturner@aztec.co.za.
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Contact Jose manuel, Martin Sanyos
☎ (Spain) 969 227 909. Apartado de Correos, 1036 Castellon, 12005 Spain.
Spain Amiga Aga Exchange (España).
Contact S I Steele, Calle Ribadavia, 16-8-1, Madrid, Espana 28029. In English only please.
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Contact Per Forslund, Kumla Alle 16, S-135 53, Tyresö, Sweden.
☎ +46 (0) 8 798 9793.
Sweden Amiga UserGroup Sweden
Contact Krister Larsson, Sjönäs 6719, 546 92 Mölltorp, E-mail: krilar.augss@mn.medstroms.se BBS: +46 (0) 505 30965. ☎ +46 (0) 505 30835.
Sweden 32-bit Ware.
Contact 32-bit Ware, Ekorrstigen 10, 147 63 Tumba, Sweden
Switzerland Amiga User Group Switzerland.
Contact AUGS ☎ ++41 34 45 3078. Bahnhofstr. 7, CH-3426 Aefligen, Switzerland.
BBS: +41 (0) 62 44 32 27.
USA Japan Amiga Group.
Contact : Rick Gardaya, PSC 78, Box 3876, APO AP 96326 USA. ■

It is Amiga Shopper's aim to list every Amiga user group in the world on these pages, so if your group is missing, please fill in and send the form below to:

User Groups, Amiga Shopper, 30 Monmouth Street, Bath BA1 2BW.

Shopper**User groups** — AS**52**

Group Name:..

Contact Name:..

....

Contact Tel:..

Contact Address:..

....

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☐ N Ireland ☐ Overseas
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Talking Shop

This month in Talking Shop: more on the Coverdisks please; Chinese whispers; in praise of genlocks; plus, competition results!

We have a varied selection of letters for you this month. There has only been a tiny amount of people telling us about projects and businesses they have set up using their Amigas. There must be more people out there using their machines to make money. Don't forget, that if we write about you in the mag, then people will know what you're up to!

Disk advice



Hi! Like the new look; now how about improving the disks – see how much you can cram in?

Both disks self-booting is a waste of space and unnecessary duplication of files. One self-booting disk is adequate; any script necessary for the second disk can sit on disk one.

Make disk two a disk space disk – put the drive on one – that gives another 80K. Use LZX to pack the disks; the files are a lot smaller and it works a lot faster. (Rush out and get the May issue of Amiga User International, that will show you how to do it.) Make the price £5 and squeeze in four disks, you should be able to get in approx 12Mb of data, PD games, PD utilities, commands, programming etc. That will put you back in pole position in the market!

James Gilfillan
Hexham

Well, James, thanks for your advice, but we decided that instead of rushing out and getting Amiga User International magazine, we thought it was much more useful to rush out and get their Coverdisk editor! Given that David Taylor created the way that AUI structured their disks, it seemed the sensible option.

You'll see the results on this month's two Coverdisks. And if you subscribe to Amiga Shopper, you'll have your special subscriber's-only disk to play with too. Which means that with all three disks, you'll have over 6Mb of excellent programs to play with.

(PS David says thanks very much for admiring his AUI disks.)

Satisfied customer

Thank you very much for the Digita Organiser prize that I received a few days ago – a great surprise to win anything at all, but for it to be something so handy is even better! As I recently upgraded to Wordworth 3.1 it is good to see that the Interface is common between the two, making for excellent ease of use.

As an aside, I use Word 2 on PCs rather a lot and with the advent of Wordworth 3.1. I now have an Amiga word processor that can do everything I do on Word, but with a much simpler learning curve and arguably a better user Interface. Given a better monitor than 1084ST, I imagine the display would be terrific.

On a slightly sourer note, having recently read in Amiga Format about Escom buying Commodore, I must express my concern about China being the chosen producer for new Amigas. Notwithstanding the appaling standards of human rights in this country, a much less important, but financially valid, consideration is that China has an abysmal record on copyright protection in all media fields, but particularly that of computer software – I recall reading that use of pirated software in China is above 95 per cent!

From a moral standpoint on human rights I have not bought Chinese products for a number of years and this will extend to new Amiga products as well, more's the pity; so let's hope that Escom changes its mind since I don't expect my A1200 to last forever and I would not wish to buy a PC unless I had to.

Thanks once more for the Organiser and keep up the informative and interesting work on your magazine – one day I will learn something about the Operating System, honest.

Mike Davenport
Taunton

Personally, I do share your reservations about the history of Chinese human rights. Unfortunately, Amiga Shopper can't really influence Escom's choice of manufacturer.

I suggest that all readers who are concerned about the issue should join Amnesty International who campaign for the release of political prisoners. I also suggest that you write to Escom directly to express your disapproval, giving them the chance to respond.

Amiga Shopper attended a press conference given by Escom in Germany recently – to find out more about their plans for the Amiga, turn to page 14.

Cost effective?

Recently, you introduced Coverdisks to your magazine and a hefty price-increase as well. Personally, I am against this; I was looking for a 100 per cent serious magazine with a Coverdisk every now and then, or perhaps a Coverdisk for subscribers. Don't you think that by introducing two disks you're too similar to Amiga Format?

Anyway, thank you very much for creating such a great, 100 per cent serious mag. Please keep up the good work.

Greg Ross

In order to be more competitive in a very tough market, we took the decision to introduce two Coverdisks to Amiga Shopper. This has been a resounding success, because many more people are now buying the magazine. Subscribers to AS get another exclusive-to-subscribers disk too.

The main reason for the price increase is because paper prices went up by 30 per cent in February 1995 and are set to go up even further in the Autumn. They had been kept artificially low by the paper industry because of the difficulties faced by many publishers in the recession. This increase in price has affected the whole publishing industry – no doubt you have read all the recent newspaper reports on the subject.

Slugs and snails

I've just got the latest issue of AS through the snail mail. It's brilliant!! It has to be one of the best issues ever, with plenty of interesting reviews to read.

On the Cyberstorm 060 review, though, you have some screenshots of SysInfo showing various benchmarks. I think you'll find that the middle screenshot on page 34 doesn't belong to the 28MHz 040 on the Warp Engine 'cos it's clocked at 35.60MHz – which if you look at the 33MHz 040 screenshot is identical! OK, own up – who put the same screenshot in twice?

Competition results

Birthday presents!

The winners of the Happy Birthday Amiga Competition that we ran in AS50 are: **Mr. A. Dimmer from Purbrook, Hants, Paul Davis from Telford in Shropshire, Bernard Holt of Sutton Coldfield, West Midlands, Ray White from Skellow in Doncaster and John Filsak from Bulwell, Nottingham.**

Each of the winners will receive a free subscription to Amiga Shopper for a year; a copy of Datastore from Digita; a 3D Arena CD from Almathera; a copy of Acid Blitz Compiler from Guildhall Leisure; plus a copy each of Internet, Modems And The Whole Comms Thing, Ultimate AMOS and ARexx: Your Built-in Turbocharger (the last three are books from Future Publishing – see page 70 if you want to buy a copy).

Anyone would think you are disorganised university lecturers.

(On a similar note of screenshots: do we get supplied polarised '3-D' glasses for the screenshots of DOpus V5 on page 34?)

I notice Power Computing are advertising a CD-ROM which allows you to 'virtually' write to CDs? It has been advertised by another firm Schatztruhe. I'm not sure, but I didn't realise that CD-ROM (as in Read Only... not write??) drives could write to one of these writable CDs. If this is the case why bother spending about £1,600 on a CDR machine?

Jason 'Boffin' Brown
York

It's a fair cop, guv. The screenshots have been duplicated as you so rightly say. Nick has been locked in the cupboard with all the copies that haven't been sold with orders to stick the right screenshot over the wrong one on the page. (Only kidding!)

On the other hand, the Directory Opus screenshots are a little strange because the printers have been careless when fitting the plates together properly on press.

Getting disconnected

I have a problem that I'm sure lots of other people do as well. It's this Comms and Internet business, you see. The Amiga is a very popular machine, and has a range of programs available to connect the machine to the Internet. My problem is that:

1) There is no readable documentation about the programs.

2) I can't tell the difference between AmigaNOS and AmiTCP.

3) I don't understand UUCP, or that Dillon thing.

4) I have no idea how to install any of these programs to the hard drive with correct assigns and so forth so that they all work properly (UUCP is notoriously bad for this) and which programs to put where.

I have bought other magazines in the past that shout "How to connect your Amiga to the Internet", but all have been the same, saying – well, you need a modem and account, and that's it! And here's some nice pictures of AMosaic in action. Even Amiga Format did this and I would have expected *so* much more from them.

So, my request is this. Could Amiga Shopper, being the number one magazine for the serious Amiga enthusiast, start a tutorial thingy on the Internet, covering:

1) What programs are available; what they do; and why we should need them?

2) How to get the programs?

3) How to get the programs installed and up and running properly?

4) What we can do with the programs, once they're running?

Even simple step-by-step instructions on how to set things up and running! *Anything* to save me from another RTFM message! (Er, especially if there is no FM to start with.)

Steve
Bath

We have been running a tutorial all about Comms and the Internet for several months now. See page 81 in this issue for the latest installment. You may find it useful to get hold of a copy of our March 1995 issue which has a jargon buster to explain the meaning of all the terms used on the Internet. Turn to page 104 to order back copies of AS.

I will also pass your comments on to Darren Irvine who writes our Comms tutorial every month.

Subjects of interest

The Amiga at work

We want to feature a series of articles about people actually using an Amiga for their work.

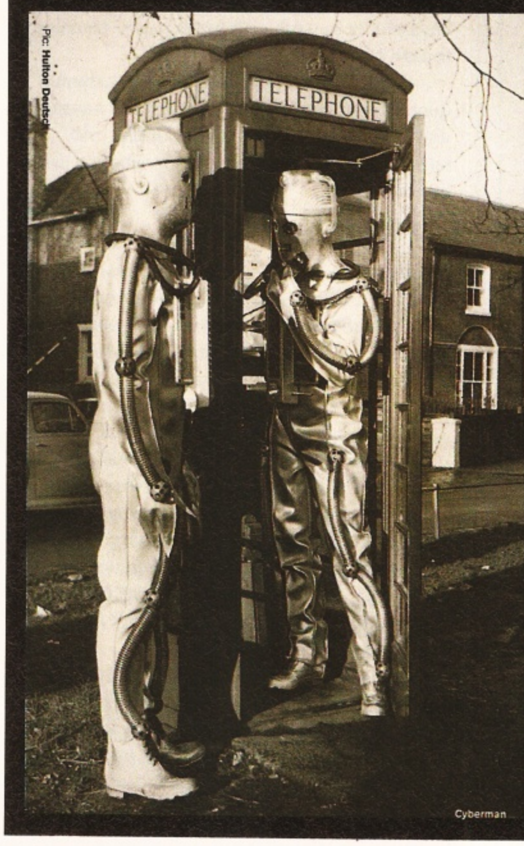
£25 Winner

Anyone who produces music, graphics, etc. on the Amiga for commercial use, please write in to Talking Shop.

You could find yourself in the next issue of Amiga Shopper!

And remember that the star letter of the month gets £25.

Can you do better? Caption competition



Cyberman

£25 winner!

£25 Winner

Colin Baker from Sittingbourne in Kent wrote the caption for the back cover of this month's issue (the picture is called Human Cannonball). His £25 is in the post.

If you think you can do better, then take a look at the back cover of this issue of Amiga Shopper, then at the picture printed below. and come up with a witty Amiga Shopper- (or, indeed, Amiga-) related caption to use in the next issue?

If your wit surpasses the Amiga Shopper team's (though we doubt it, of course), then we'll send you a cheque for £25.

Send your witticism to:
Can you do better?,
Amiga Shopper, Future Publishing,
30 Monmouth Street,
Bath BA1 2BW.

A reason to return

I'm glad that the Amiga has been finally bought (well, perhaps not paid for yet, but at least there was a decision). I hope that the Amiga will get back on the streets soon. Had this happened half a year ago, I might have been using an A1200 at home now, instead of a PC. I hope Escom gets to develop new Amiga models, so I would have a reason to return to the Amiga. It's still one of the nicest computers around.

Shopper may not be the best place to say this, but I think that the CD^{32} could have given a good boost to the Amiga, had it not disappeared from the market only a few months after its appearance. While it may be important to show the productivity side of the Amiga, the games side is also quite important (and a huge market) and the Amiga is losing ground to the PC in some game areas.

Eyal Teler

If you turn to page 14 and read our Special Report about Escom's plans for the Amiga, I am sure you will be encouraged to save up your hard-earned cash and get back into Amigas and CD^{32}s for that matter.

Video view

Thanks for your excellent genlock review – I've been considering upgrading from my current Minigen for some time.

You mentioned that you wanted a 12V 1A power supply? Well, I know that Maplin do one for £9.99 – it's regulated so it should be safe for use with your genlock. (You might need to change the connector on the end though.)

You also recommended a video camera with the lens cap on for a stable sync. This seemed a strange choice – first, the Amiga's own sync is stronger than any external one I've used – I just disconnect the 'video in' on my genlock. If I want better results, I use my Commodore modulator which outputs a nice, strong composite signal.

Now, quite often I *do* connect a video

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Write to Talking Shop

To add your contribution to any of the debates going on on the Talking Shop pages, send your letters to:

Talking Shop,
Amiga Shopper,
Future Publishing,
30 Monmouth Street,
Bath BA1 2BW.

Alternatively, you can E-mail your letters to:
amshop@cix.compulink.co.uk
or:
sgrant@futurenet.co.uk
All letters received at these addresses will be considered for publication, unless you specifically advise us otherwise.

101

source to the genlock just for its sync – but not to gain a better signal. Instead, if I am doing a graphics-only bit on a video, then I use the sync from whatever device I am using for input because this ensures that degradation/colour loss etc. remain constant throughout the production even when I switch back to mixed video.

I have found the strongest input sync can be obtained by connecting the video in on the genlock to the output from your video recorder, and setting your video recorder to display a broadcast TV channel (BBC1 for example). This gives a remarkably strong signal for you to work over.

A camcorder is no good for two main reasons. Firstly, unless you leave it recording away, it most usually turns itself off from standby mode after five minutes – very irritating if it happens during a recording session. Secondly, if you just leave it on, neither playing back a tape, nor recording live, then, unless you have a colour viewfinder, you only get a monochrome signal and therefore monochrome Amiga graphics. I don't know if this is true for all cameras, but it's certainly the case for Sonys with monochrome viewfinders.

Finally, while we're on the subject of video, I'm always amazed at the recommendations you (amongst many others) make to newcomers to the game. I'm referring to your recommendation that you pause both decks during editing, then release both pauses simultaneously to start recording.

Now this is a very good way of making sure your selected clip starts at precisely the point you want, but as anyone who has tried to edit using cheap domestic video recorders will tell you, the transition is quite often less than perfect. I find I get the best results from my equipment by letting the playback deck run for a few seconds and settle down before I release the recording deck from record-pause.

Of course, this necessitates quick reactions and you won't get your edits spot on – but then with domestic decks you're never going to be spot on anyway and this technique tends to give better transitions. They key to it is to take plenty of video with your camera – shoot a few seconds extra before and after each clip you want. After all, tape is cheap and it's better to have plenty to work with when you're planning to edit it later.

Does Amiga Shopper accept Workbench queries by E-mail? Only I sent one off aaaaages ago (when you first got your address) and haven't heard anything since – maybe it's just a big backlog?

Ian Micallef

I'm afraid you're wrong about the best source for sync. Outside of a TBC, a video camera with the lens cap on provides the most stable source of sync available from the consumer sector. Using a video recorder certainly provides a strong video source, but not for sync. The change from light to dark on a TV channel can cause considerable timebase errors and, if this is crucial, you'll lose out. As for the camera going into standby mode, this only happens when you're using battery power, not for the mains. How else would Dixons get away with their camcorders pointing at the High-Street if they were going into standby mode every five minutes?

Steve McGill

As for your Amiga Answers – not Workbench, that's Amiga Format, which may be why your questions have gone astray – we try to answer as many of your queries as possible, but as you so rightly say, we do get hundreds in every month and can't possibly answer them all.

Power supply

While reviewing the Rocgen Plus you sought information on the availability of a 12-volt 1-amp supply. The said item can be purchased from any branch of Maplin Electronics (along the A4 to Bristol, 302 Gloucester Road, across from the Esso garage), priced at a reasonable £9.99. Convenient for yourselves, but for the rest of us Maplin offer a comprehensive mail-order service with a 800+ page catalogue for only £3.45 – well worth a look!

Maplin Electronics, PO Box 3, Rayleigh, Essex SS6 2BR.

Thanks for the Supertest, I've decided which genlock to go for, hope the above is of some use to you.

G McWiliam
Aberdeen

In answer to the LocGen Plus request for a 12V 1-amp supply (issue 50, page 27).

Vivanco, Universal Supply Unit – £19.99. 3-12v switchable, stabilised power supply – output 100 miliwatt. Complies with BS.
☎ 01442 231616. Order No.4008928031111.

Anon ■

Advertisers' index

AMIGA FORMAT PRESENTS

Instant relief!

Next month all your questions will be answered. We get hundreds of letters to Workbench every month, so we'll be addressing some of the more persistent problems in excruciating detail. So, if you're having a problem with your printer, modem, monitor or even commercial software, you're almost bound to find an answer in our troubleshooting guide. Even if fortune has smiled on you and you have no problems, you're certain to find some useful Amiga advice in our bumper section of tips and tutorials.

Escom speak

Plus, we bring you the latest news from Escom and their plans for the Amiga. Don't miss it.

Issue 74

On sale Thursday, July 6

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Issue 51

InkJet printer Supertest; Commodore sold! news story; ARexx feature; reviews of CyberStorm 060, Directory Opus 5, Termite, Broadcaster Elite, DiskSalv 3, Hi-Q PowerStation, Designer Objects and five new CD-ROMs; Photogenics, Assembler, DICE and Comms tutorials; new PD; all your problems solved in Answers; special versions of fantastic Organiser and Twist 2 on the Coverdisks...£5

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Issue 49



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Issue 48



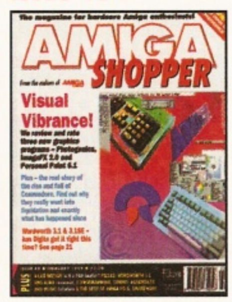
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Issue 46



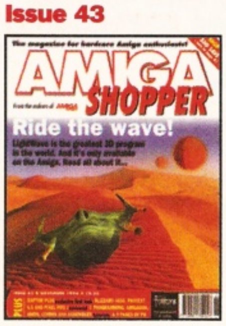
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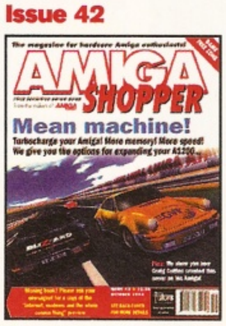
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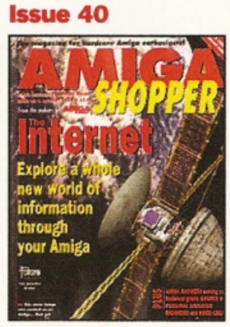
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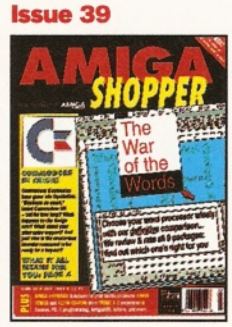
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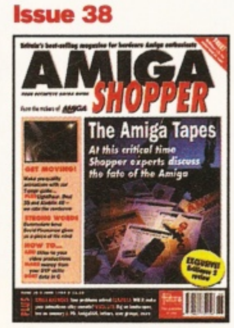
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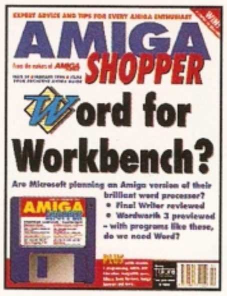
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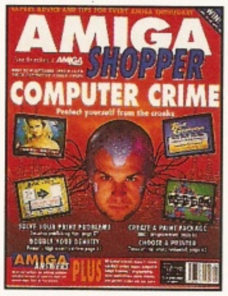
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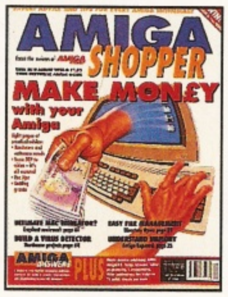
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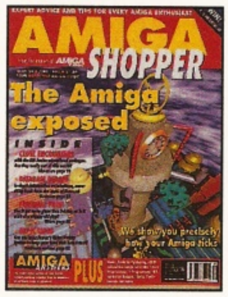
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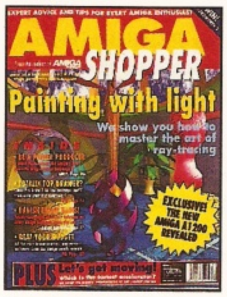
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Plus!

- The first part of our stunning Protext giveaway, with the full program next month and the dictionary on our October disk. As well as tonnes more utilities on the second disk
- Pages and pages of reviews of all the latest Amiga software and hardware
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Supertest

Fancy yourself as a bit of a Picasso? Or maybe a Rembrandt? Then you can't afford to miss our Supertest next month. Peter Lee test the best paint and image processing packages around.



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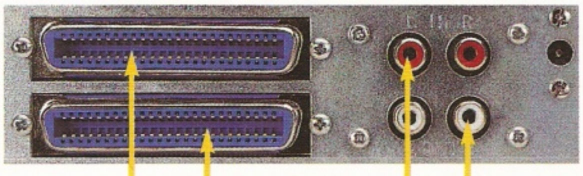
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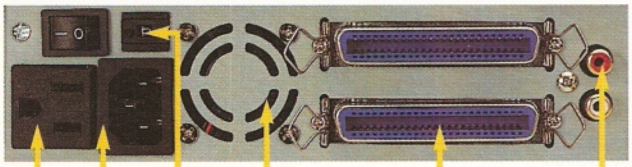
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